Tampere University

Martina Don Welathanthri

CUSTOMER VALUE IN THE BUSINESS MARKET OF CIRCULAR ECONOMY

An Exploratory Multiple Case Study

Faculty of Management and Business
Master of Science Thesis
November 2019

ABSTRACT

Martina Don Welathanthri: Customer Value in the business Market of Circular Economy
Master of Science Thesis
Tampere University
Master's degree Program in Industrial Engineering and Management
Majoring in International Sales and Sourcing
November 2019

The leading business markets across the world today incline toward circular economy business models that also promise profitable development through many new opportunities for the firms such as new profit streams and competitive advantage, while the users enjoy various consumer benefits. However, circular economy models involve collaborative partnerships to enable the circularity of resources, creating new customer-supplier relationships in the business market, but the perceived customer value is left unexplored in research and industrial fields. Thus, the objective of the thesis is to investigate and explore customer value and customer value dimensions in circular economy, biasing to the business market. The thesis contributes to the research gap of customer value in circular economy and influences the industry in creating more appealing value propositions in the business market.

In this study customer is value regarded as benefits that a good or a service provides, as perceived and measured by the customer. The thesis bases on the existing literature about customer value, value assessment in the business market and business models of circular economy. A multiple case study was conducted on customers of five various circular economy businesses. The cases were chosen to cover different circular economy business models, due to the numerous correspondent customer categories that can fairly contribute to the study. Accordingly, the study was conducted on customers of the case firms, using semi-structured interviews to facilitate explorative research approach, together with participant-observation and focus group methods to achieve richer data collection. The qualitative rigor of the built theory was achieved by analyzing the data using the Gioia methodology of ground theory development.

The findings reveal various value dimensions existing in both consumer and business markets of circular economy. The partnering customers in the business market seem to significantly value the influence of the CE solutions to the firms' business functions, displaying value in functional dimension. Additionally, the value for movement toward sustainability exhibits esteem value while savings and additional profit streams affirm value in economic dimension. Adversely, the existence of emotional value in the business market was among the findings as well. Consequently, the business market consists of customer value in functional, economic, esteem and emotional dimensions. Compatibly, the consumer market resides value in the dimensions of functional, economic, symbolic and emotional, with a sub-dimension of surprise in emotional dimension. However, the findings of the thesis also attempt to enhance the observability of benefits in CE solutions by assessing the non- economic value dimensions in terms of economic value, suggesting the industry to respond to customer perceived value in CE solutions by creating and offering value propositions accordingly.

Keywords: customer value, value dimensions, circular economy, business market

PREFACE

This thesis was conducted as a part of a CircHubs research project that intends to foster networks of circular economy centers. The research project is part of the project portfolio of the Center for Innovation and Technology Research (CITER) research group at Tampere University (former Tampere University of Technology). I highly appreciate the support of the case companies in providing me with the partnering customers to interview, and the opportunity I was given to learn and experience from industrial exposure. In return, I hope that the contribution of the thesis will be useful to the industry in both supplier and customer perspectives.

This thesis improved my knowledge and insights in the field of sales management and customer relations, which I would like to pursue my career in the industry. Also, my interest has evolved to value creation within sustainable business, to contribute to the world more meaningfully. Therefore, I would like to convey my special gratitude to my supervisors, Prof. Leena Aarikka-Stenroos and Doctoral Researcher Valtteri Ranta, for giving me the opportunity to work on my thesis under a valuable topic, as part of the project team. I sincerely appreciate the constant guidance and support during the research process and for helping me develop my thesis and mentoring me through my learning process.

I also want to thank my batch mates for the collective encouragement we always maintained to achieve every goal in the degree program, including the thesis. Although this marks the end of an era, you will always be part of my life. I am also grateful to University Lecturer Jouni Lyly-Yrjänäinen for the guidance and support he gave throughout the degree program. Finally, I would like to thank my loving family- Papa, Amma, and Brian for always believing in me.

Tampere, 25 November 2019

Martina Don Welathanthri

CONTENTS

LIST OF SYMBOLS AND ABBREVIATIONS

3R	Reduce Reuse and Recycle
AMJ	Academy of Management Journal
CE	Circular Economy
RQ	Research Question
SDS	Sustainable Design Strategies
US	United States
CircHubs	Circular Economy Hubs

1. INTRODUCTION

1.1 Motive of the Study

A variety of circular economic business models are studied by many authors, as reviewed by Planing (2015) and the importance of correlated collaboration with customers often discussed. However, the customer's perspective of value in offered solutions are still a mystery, especially in the business market, as a certain amount of consumer value evaluation has been performed by a few publications such as Antikainen et al. (2018) and Ellen MacArthur Foundation. In business market management, customer value is considered the cornerstone in the business market, where it is used as a concept to compare competitive advantage among the offerings (Anderson and Narus, 1999). Thereby, the absence of research on how the circular economic offerings are accepted in the business market is surprising and enticing to explore.

Kirchherr et al. (2017) explain circular economy as a way of achieving business sustainability through replacing the end of life business models with closed-loop models that eliminate waste. Yong (2007) affirms that reduce, alternative reuse, recycle and recover of material and goods is the guiding principle of implementing circular economy. Therefore, circular economic business models have a greater emphasis on responding to resource scarce that the world is critically facing, to survive the growing demand of the increasingly affluent population. As a result, the firms, especially in the US, Europe, and China today are leaning towards restorative business models, which also promise profitable development through many new opportunities for the firms. As Ellen MacArthur Foundation (2013) points out, firms can create new profit streams and competitive advantage while the users can benefit by gaining more choices, experiencing fewer complications and premature obsolescence and enjoy improved service quality.

Customer value research in existing literature comprises of definitions and interpretation approaches. Among Interpretation approaches, value dimensions occupy a major role, to understand customer perceived value better. Circular economy business context introduces a novel perspective with novel promises; hence, one might wonder how differently this novelty may affect the customers. Therefore, understanding the customer value dimensions particularly for the context of circular economy is a good approach to answer

the question. *What do customers value about circular economy solutions? What dimensions the value can be defined in? How do the value dimensions explain the novelty of the solutions? Therefore, will there be new value dimensions for circular economy context? Do the perceived value dimensions correspond to what is promised?* The brewing lot of questions motivate the curious mind to study and share the knowledge for the benefit of the research field as well the industry to make use of the knowledge for the growth of circular economy markets in particular.

1.2 Research Questions

In the growth phase of circular economy markets, *What is the customer value?* question is currently answered with assumptions or rather expectations. When the existing shared knowledge is revised about customer value in general, the absence of knowledge for the new context yearns for new research. Customer value has many perspectives in definition, so can they be applicable in circular economy the same, or differently? Are the value dimensions known similar in the context of circular economy or are there any unknown dimensions existing?

This research is carried out as a part of the CircHubs research project that intends to foster networks of circular economy centers. The research project is part of the project portfolio of the Center for Innovation and Technology Research (CITER) research group at Tampere University (former Tampere University of Technology). In the case project, the researcher participates in evaluating customer value in the circular economy centers. Due to the access granted through the research project, the necessary empirical data gathering was enabled for the study.

The research focuses on exploring the value dimensions concerning circular economic business and building a framework that elaborates value concerns corresponding to different categories of customers in circular economy. The research topic was also chosen upon the researcher's interest, based on previous project experience and the opportunities provided by the research project. Moreover, the researcher wanted to construct results based on ground theory systematic method of construction of theories. Thus, the objective of this thesis is…

…to investigate and explore customer value and customer value dimensions in circular economy markets.

The objective is divided into four research questions. These research questions are:

RQ1. How does perceived value vary in different circular economy business models?

RQ2. How are circular economy offers valued in business and consumer markets?

RQ3. How value is interpreted in circular economy business market?

RQ4. What economic relations exist in the value dimensions of circular economy business market?

The research gap and its relation to the existing literature is illustrated in Figure 01. The research scope is as open as to simply address the main question: What is customer value in circular economy? Due to the wide scope of this question, the researcher chose the most critical and practical sub-questions, to define, understand, and make use of the value dimensions in circular economy market. Hence, RQ1 and RQ2 question what the value dimensions are in circular economy market, while RQ3 and RQ4 present the rationale behind the existence of the value dimensions in the business market.

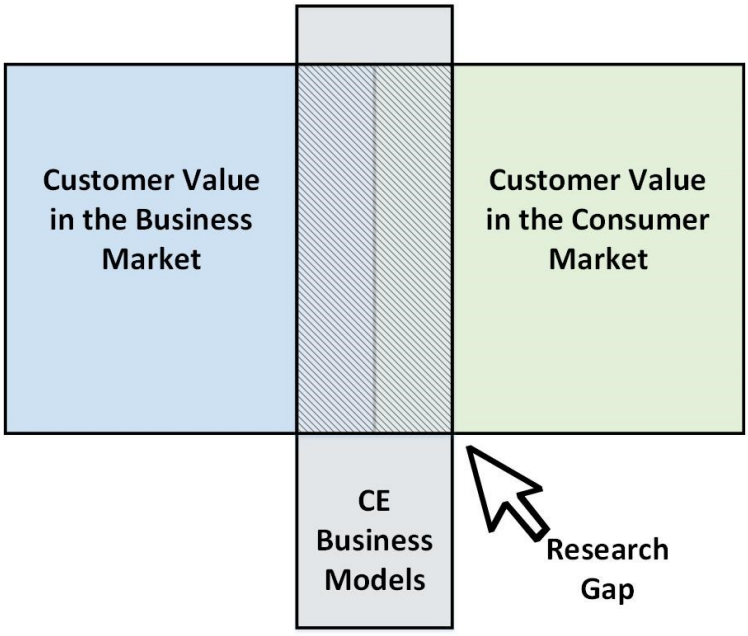


Figure 01. Research gap addressed by the study.

The thesis serves in both academic and industrial aspects. In the academic aspect, the thesis explicitly discovers the value dimensions as well as corresponding justifications, in circular economy business. To contribute to the industry, the thesis shares insights concerning the customer perceived value in circular economy to better argue value offerings or even adjust the value propositions with the newfound knowledge.

1.3 Study structure and timeline

To achieve the wide scope objective and coherence of the thesis, the researcher realized that a good number of data sources are needed to construct a reliable theory. Additionally, to design result presentation with different types of customers, accessing numerous firms in different business model categories made better sense. However, due to the high degree significance of collaboration of consumers in circular economy operations, the author extended the research to the consumer market, to cross-examine existing literature on consumer value as well. Therefore, a multiple case research method seemed most convenient to carry on the study. Additionally, case selection was carefully performed to address as many most common business models as possible to reach.

This thesis explores current research gaps and intends to generate new knowledge as an inductive research. Therefore, the researcher chose a systematic approach to new concept development and grounded theory that was performed by Corley et al. (2004). The explorative research approach is designed to bring ‘‘qualitative rigor’’ to the conduct and presentation of inductive research, to gain the reliability of the results. Moreover, among several research methods such as existing literature, official websites, and qualitative interviews, qualitative non-biased interviews were used in priority for data gathering, as justified by Gioia et al. (2012).

Employing recent successful qualitative research in the Academy of Management Journal, Bansal and Corley (2011) reveal that convergence in structure could be identified in the order of the sections in journals as the introduction, literature review, methods, findings, and discussion. Inspired by AMJ style, this thesis comprises of similar structure. In the first chapter, the research motivation, question and structure are presented to introduce the study. The second chapter discusses the theoretical background that is needed to base the conduct of the study with adequate fundamental understanding (Bansal and Corley, 2011) about customer value, value assessment, circular economy business and value perceptions researched so far in the consumer market to fine-tune the research gap that the study addresses.

The third chapter demonstrates and justifies the research methodology about selecting inductive research and the decision to study multiple cases. Besides, the selection criteria of the cases, presentation of gathered qualitative data, analysis and the conceptualization of new theory are performed in this chapter. The theoretical background of inductive research and conceptualization method based on grounded theory is also discussed to use in data analysis and conceptualization of the new theory of circular economy customer value. The fourth chapter presents results that answer each research question

and presents value dimensions of circular economy with respect to various customer roles and markets. As Bansal and Corley (2011) advise, the author intends to achieve transparency of the results by providing rich explanations of the findings. Moreover, the chapter shares the researcher's insights based on research findings to explain the economic values of the discovered dimensions in the business market. The final chapter concludes the thesis, with discussions contributing to research and industrial fields, together with the suggestions for future research.

2. THEORETICAL BACKGROUND

2.1 Customer Value

Value plays an important part in business marketing theory and practice. Anderson and Narus (1999) credit value as the cornerstone of business market management. Despite the importance value carry, the interpretation of what value is often perspective and contextual. Thus, the term is almost indefinite. Upon different sources, value among other things is defined as:

"The benefit that a good or a service provides, as perceived and measured by the beholder. What one customer finds of value can be different from what another finds of value. Good marketing will sell a product based upon its perceived value to a target market."

Doyle, 2016

"The extent to which a good or service is perceived by its customer to meet his or her needs or wants, measured by the customer's willingness to pay for it. It commonly depends more on the customer's perception of the worth of the product than on its intrinsic value."

Business Dictionary, 2019

"The monetary worth of something."

"A fair return or equivalent in goods, services, or money for something exchanged."

"Relative worth, utility, or importance."

Merriam- Webster, 2019

Although the definitions appear to have differences, principle elements can be identified to base customer value. For example, Zeithaml (2006) emphasizes that the concept of value is often viewed with respect to quality and price of a customer's acquisition. Price in the context of value could be both monetary and non-monetary sacrifices one makes in decision making, acquisition, utilization, and disposing of the offer (Kotler, 2013). However, Zeithaml (2006) further establishes that value is subjective per consumer (as personal and involved with emotions) whilst quality carries more objective attributes that a supplier provides to a target market. This subjective quality of value appends vagueness

to the definition and concludes to a trade-off between all the benefits obtained and sacrifices made by a customer. In other words, Kotler (2013) introduces customer perceived value as the difference between total customer benefit and total customer cost.

Value in economy and marketing literature share a view for being subjective upon the contexts of solution type, supplier, market competition, and the customer. About the subjectivity of value, Heinonen et al. (2010) and Vargo and Lusch (2004) discuss two vital concepts, namely; Value-in-use and exchange value. On one hand, the value a seller receives from a buyer in exchange for a product or service and is typically measured in monetary terms, is value-in-exchange (Bowman and Ambrosini, 2000). On the other hand, Bowman and Ambrosini (2000) define value-in-use as the subjective utility a customer perceives through the usage of a product or service that fulfills particular needs.

2.2 Value Dimensions

Customers always determine value; as Rintamäki et al. (2007) claim that customers look for offers in the markets that can provide economic, functional, emotional and symbolic values. Lower the prices, savings of time, effort and money and effective help in decision-making that cuts down the sacrifices, bring out economic and functional values of an offering. The more subjective values comprise of emotional and symbolic dimensions that represent sensational experiences and reflect personality. However, Kotler (2013) presents a framework for customer perceived value, to describe value justification between benefits and costs. Figure 02 Illustrates the framework that shows the determinants of total customer benefit, total customer cost, and perceived customer value as derived from Kotler (2013).

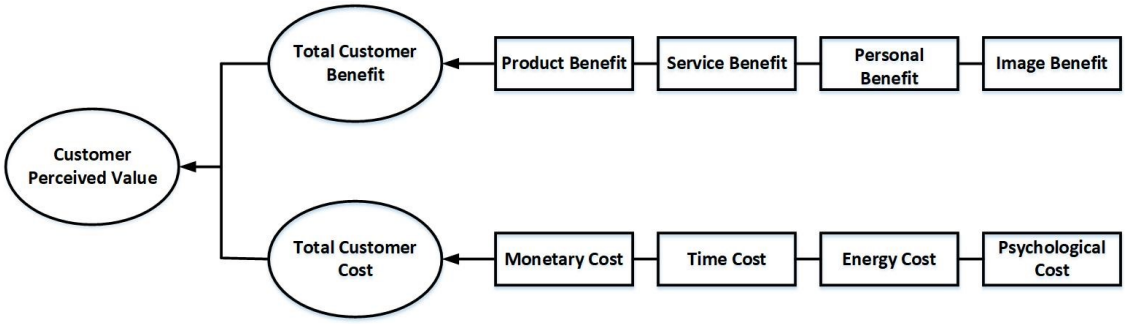


Figure 02. Customer perceived value derived from Kotler (2013).

As illustrated in the figure, the customer perceived value is defined as a justification between the total customer benefits and the total customer cost. The benefits and costs may belong to various dimensions that contribute to the totals. Value in business markets is differentiated in terms of components by Narus and Anderson (1998), as the monetary

value of economic, technical, service and social benefits a customer firm perceives for the price paid. Another presentation of value dimensions is given by Miles (1961), under the criteria of time, place and use. They are use-value, esteem value, cost value, and exchange value. Firstly, the use-value covers the features and qualities, which shape a use, operation, or service. Secondly, esteem value is the prestigious dimension that a product brings for example, by a brand that a customer thinks worth owning. Thirdly, the cost value is the entailed value of reduced expenditure, which results in a greater value. Finally, the exchange value is the properties that develop an item enabling exchange for something else useful. For instance, the old wine or antique items hold greater value.

2.3 Approaches to Value Creation

Gummerus (2013) identifies two high-level literature streams of value, one as value creation process and the other as value outcome determination. Value creation processes are the approaches and resources used in creating value with customer involvement, for example, value consumption. In contrast, product offers, augmented product features, and interactions represent the supplier aspect in value creation.

Profiting through meeting customer expectations is the core of a business. Therefore, customer satisfaction is one of the most important drivers of a business but as Kotler (2013) expresses, not the ultimate goal, since increasing customer satisfaction leads to cutting down of prices and advancing services, subsequently decreasing profits. Alternatively, a company might increase profitability by other means. Lindgreen and Wynstra (2005) express that augmented product concept provides a competitive advantage, by creating value in the form of product packages, service, financing, delivery methods and everything else that attracts customers. In other words, these are different approaches to value creation.

Another important approach is customer-supplier interactions or close relationships because Lindgreen and Wynstra (2005) reveal that the concept of value is not limited to marketing context but also important from the perspective of purchasing and supply management. Business markets realize more value in close supplier-customer relationships compared to consumer markets. Ravald and Grönroos (1996) state that a loyal relationship can be established with a positive product or service value while increasing the relationship value again contributes to product or service quality improvement. Moreover, Ravald and Grönroos (1996) also elaborate that a close relationship provides safety, credibility, security, continuity which fuels the customer's trust. Contrarily, as Ravald and Grönroos (1996) point out, the establishment of relationship value is achieved through high-quality products and services, which make the value creation on a close relationship

an interdependent process of with interdependent achievements to both committed parties.

Miles (1961) differentiates value in the supplier's perspective, from the customer perspective. For example, a loyal customer is more beneficial for a supplier in responding to cross-selling approaches, less time expenditure in personal selling, helpful in market growth using word of mouth, and even less price sensitive (Lindgreen and Wynstra, 2005). Moreover, close relationships result in straight rebuy (Kotler, 2013) which avoids costs in the purchase steps; acquisition, set-up, and marketing.

It is about time to realize that in a close relationship, the suppliers can even gain more economic value compared to what customers earn. Lindgreen and Wynstra (2005) also state that existing customers are a valuable asset in business markets. Additionally, the business functions that create value to a supplier is expressed through a framework presented by Ritter et al. (2001), as shown in Figure 03. The functions are categorized as direct and indirect according to the effectiveness of the function on supplier-perceived value.

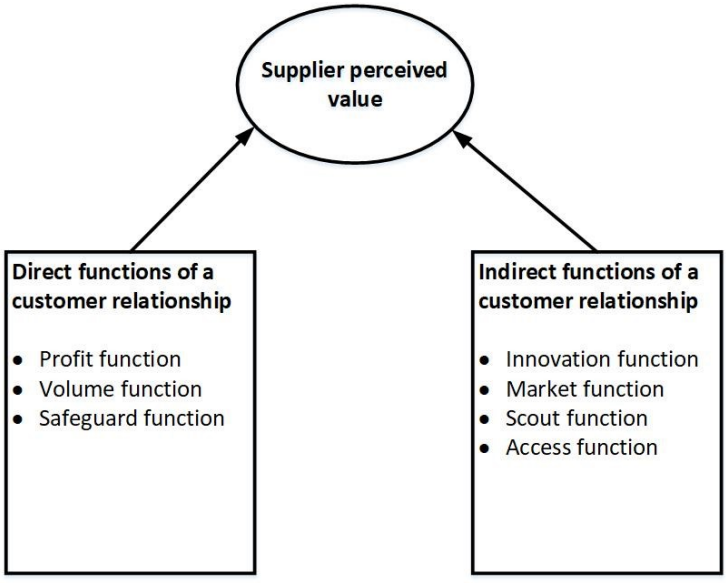


Figure 03. Business functions that create value to a supplier in a customer- supplier relationship (Ritter et al., 2001).

As illustrated in the figure, the direct functions comprised of the profit function, volume function and safeguard function. Firstly, profit function implies the basic customer-supplier profitable activities performed in the relationship. Secondly, volume function emphasizes the activities that encourage high volume purchases in the relationship, for ex-

ample, the cost reductions or bundle offers. Lastly, safeguard function indicates the activities, which provide safety or insurance to the supplier in the competitive market and subsequently improve the supplier's cost efficiency in operations. (Ritter et al., 2001)

Accompanying the direct functions, the indirect functions are innovation function, market function, Scout function, and access function. Firstly, innovation function represents establishing relationships to co-create innovation value, leveraging on each other's capabilities. Secondly, the market function gives the ability to access new customers, for instance, opening opportunities to access the customer's competitors. Thirdly, scout function also enables other critical information that would have not been easy to get through any other general channels of information. Finally, the access function opens up opportunities to access third party actors that can be important.

Value co-creation is another way that suppliers and customers can benefit from each other by combining capabilities and according to Lindgreen and Wynstra (2005), innovate together. Prahalad (2009) contributes to what customers value in value co-creation; that the co-creation experience (not the offering) is a unique value perceived in individual basis, within the value co-creation communities. Moreover, as sacrifices that customers might need to make in a close relationship with the supplier, Lapierre (2000) states the time/effort/energy is one aspect which is spent in a high number of meetings, bargaining in agreements, training and development. Another aspect is the conflicts, which indicate the frequent arguments and disagreements in the business and in achieving the respective goals of the parties.

Service dominant approach of value provides a more prominent value-in-use due to the emergence of value in the process of value creation, in addition to value-in-exchange (Heinonen et al., 2010). Further, in service-dominant logic of value creation, Vargo and Lusch (2004) raise the importance of the use of operant resources such as technology, that cause-effect on enabling humans to both multiply the value of natural resources and to create additional operant resources. A service as Grönroos (2006) explains, justifies value-in-use aspect of services as;

"A service is an interactive process and during such interactions, the customer and the service provider co-produce the service. During this interactive part of the service process, production and consumption take place simultaneously, and hence during that process, the customer perceives the value that is created or emerges from the service."

Bitner et al. (1997) identify a role to customers as contributors to quality, satisfaction, and value. In fact, according to Dabholkar (1996), in the role of contributors as such,

customers simply find participating in service delivery intrinsically attractive. For example, customers may like to do banking through ATMs, online banking or third party mobile applications, purchasing online their own through platforms, and even interacting with service providers electronically or using self-services, such as payment through self-checkout cashiers in grocery stores. The self-services also attract customers with discounts, otherwise, customer convenience or greater control over the service outcome, delivery time or simple enjoyment of the task are elements of customer value in services (Dabholkar, 1996). Further, Mcdougall and Levesque (2000) suggest that customer satisfaction may be based primarily on the service experience (i.e. service quality dimensions).

Vargo and Lusch (2008) and Meyer and Schwager (2007) see value in service-dominant logic of business as idiosyncratic, experiential, contextual, and meaning-laden, i.e. a highly subjective experience to any direct or indirect contact with the company. Hence, it is important to differentiate value in service-dominant logic upon service type. Bowen (1990) suggests two distinct types of service as customized personal services and semi-customized less personal- services. Integration of customized business solutions for maintenance, data monitoring and analysis, and security systems vs. the use of common solutions such as common seller platforms and insurance are examples. Accordingly, the customer experience may resonate with the supplier perceptions and functions of the service (Puccinelli et al., 2009).

2.4 Value Proposition and Customer Value Encounters

Enticing the business customers in paying premium prices using value proposition or in other words, by conveying business case related benefits worthy of the investment is an important alternative in achieving customer satisfaction without shrinking profits. Anderson et al. (2006) illustrate three kinds of value propositions; all benefits, favorable points of difference and resonating focus. First, all a value proposition can be presented listing down all the potential benefits a solution delivers to target customers. Hence, the suppliers need the least knowledge about the customers and the competitors. Anderson et al. (2006) also claim that this approach most likely leads to just a benefits assertion, as some or most of the benefits are not advantages to customers. Second, favorable points type of value proposition specifically solves a customer requirement in a different and a better way than the next best alternative supplier (Anderson et al., 2006). This requires a better understanding of the competitors' solutions as well as the targeted customer business applications and operations. Finally, resonating focus focuses on the customer requirements closely and solves them on point correspondently. The offerings

provide a superior solution that addresses the most important elements of the requirements. Anderson et al. (2006) further describe that the value propositions resonating focus require the most effort, time, persistence and some creativity, which makes the type gold standard, assuring best persuasion. However, it is in the hands of the supplier management to make customer value propositions persuasive, by effectively demonstrating as well as documenting them with the use of verifiable data, numbers, and equations.

Purchase Intention is recognized by Chi et al. (2009) through a model that comprehends customer purchase decision- making into five steps. Therefore, the customer value can be assumed to be encountered in the five steps of:

1. Problem recognition
2. Information search
3. Alternative evaluation
4. Purchase decision
5. Post-purchase behavior.

First, the value of a solution may depend on a current problem or requirement the customer occupies, resulting in values of a solution in the functional dimension due to fulfilling the requirement. Second, the information search may influence the customers to realize the values of a particular solution. Therefore, branding and marketing strategies that inform the customers by making value propositions score the markets effectively. Third, alternative evaluation invites the next best solution to compare, subsequently justify with better value. Fourth, the purchase decision may require brewing time to finally purchase, based on the values appeared from different influences. However, in the business market, the reason for purchasing may be the relationship value, despite meeting requirements; hence, the parties involved try to come to a compromised agreement (Ravald and Grönroos, 1996). Finally, post-purchase behavior may refer to value- in- use, which occupies a separate phase of value encounter.

2.5 Value Assessment

Value outcome determination in existing literature researches what value is, how customers make value assessments, what value components there are and how to maximize evaluations (Gummerus, 2013). When an offering is relatively new, and the suppliers or producers are uncertain about value perceived by the customers, value assessment is performed as a comprehensive process in different strategies (Keränen

and Jalkala, 2013), resulting in the suppliers gaining better knowledge on customer processes, needs and how the offer responds to those particulars. The value assessment aids in building customer value models that represent what suppliers are doing and could do, in monetary terms.

However, apart from the evaluation process that takes place in different phases of offer's delivery, Anderson and Narus (1998) suggest nine different methods of value assessment, from which the customer value models can be built. The methods such as indirect survey questions, direct survey questions, conjoint analysis, and focus groups heavily rely on customers' perspective of functionality, performance, and worth of the offer. Among other methods, which are internal engineering, field value-in-use, benchmarks, compositional approach, and importance ratings, the field value-in-use is the commonly used and most accurate in building customer- value models.

As Narus and Anderson (1998) suggest, it is important to start value assessment by understanding the outcomes of the assessment as what the researches expect as well as what the customers gain. Hence, providing assessment resources at no cost to the customer, offering research findings that benefit the customers is an irresistible incentive for firms. Secondly, listing value elements of the offer that cause benefits and costs to the customer's business is performed as well. The comprehensive list of elements may be technical, economical, service and social in nature.

The gathering of the data also involves estimating monetary value of the value elements. Due to the challenging nature of estimating the monetary value of less tangible elements such as social effects, Anderson and Narus (1998) mention that some suppliers regard them as value placeholders, separately. Furthermore, assumptions taken when gathering data are recommended best to receive customers' consent to ensure the credibility of the suppliers.

Validation of the customer value model with other customers by conducting more similar assessments allows the supplier to understand the variance in the estimates according to different customer applications, capabilities, and usages. Subsequently, the value model refines with a better understanding of the reliability of the data that are gathered in different perceptions. However, the resulting value model serves the suppliers in building better sales tools as well as improving performance and competitive advantage of the offerings.

2.6 Value Perspectives of Circular Economy

Sustainable product design, demand, and consumption is no new knowledge on earth since the oldest civilizations. The mindsets based on love for nature, natural resource scarcity, cultural values as well as religious beliefs lead the humankind to practices such as sharing what is precious, repair and reuse what is durably functional, find new usages for obsolete and consumption of plant-based food in substitution to meat. Subsequently, business models like rental services, resale, donations, recycling, waste management, as well as substitute product development fostered sustainable business which as implied by Kirchherr et al. (2017), is about creating environmental quality, economic prosperity and social equity, to the benefit of current and future generations.

The concept of the circular economy (CE) was introduced by policies in China and European Union to encourage countries, businesses and the consumers to close loops of product lifecycles to reduce harm to the environment (EU Commission, 2014; Murray et al., 2017). Therefore, the transition from the linear model to circular economy interests many authors to develop principles, that Prieto-Sandoval et al. (2018) recognize in two types in the existing literature. First, the most popular group of principles are the 3Rs which denote reduce, reuse and recycle (Yong, 2007). The principle is characterized by Wang et al. (2014) as low consumption, low emission and high efficiency recommended by Yong (2007) as a good guiding principle. Second, is the use of sustainable design strategies, as Ellen MacArthur Foundation (2013) presents for the industrial system, identified as a restorative design. Further, Ellen MacArthur Foundation (2013) explains the principles that the design is based as, Designing operations that do not cause waste, use of modularity, versatility, and adaptivity to build resilience, use of energy from renewable sources, thinking in a system to foster circularity between entities, and the change of mindset to get better use from waste. However, the principles use different ways to convey similar practices to reuse when it is possible, recycle what cannot be reused, repair what is broken and remanufacture what cannot be repaired (Stahel, 2016).

Circular economy is a way of sustainable development and business. The shift to the new business model concepts requires more than regulations and guidelines. Hence, the next step of scholarly research focuses on research and visibility of the benefits that the circular economy models bring to the society, the businesses as well as individuals. Therefore among many publications, Korhonen et al. (2018) share the win-win potential of circular economy as shown in Figure 04. The beneficiaries are identified as the environment, economy and society.

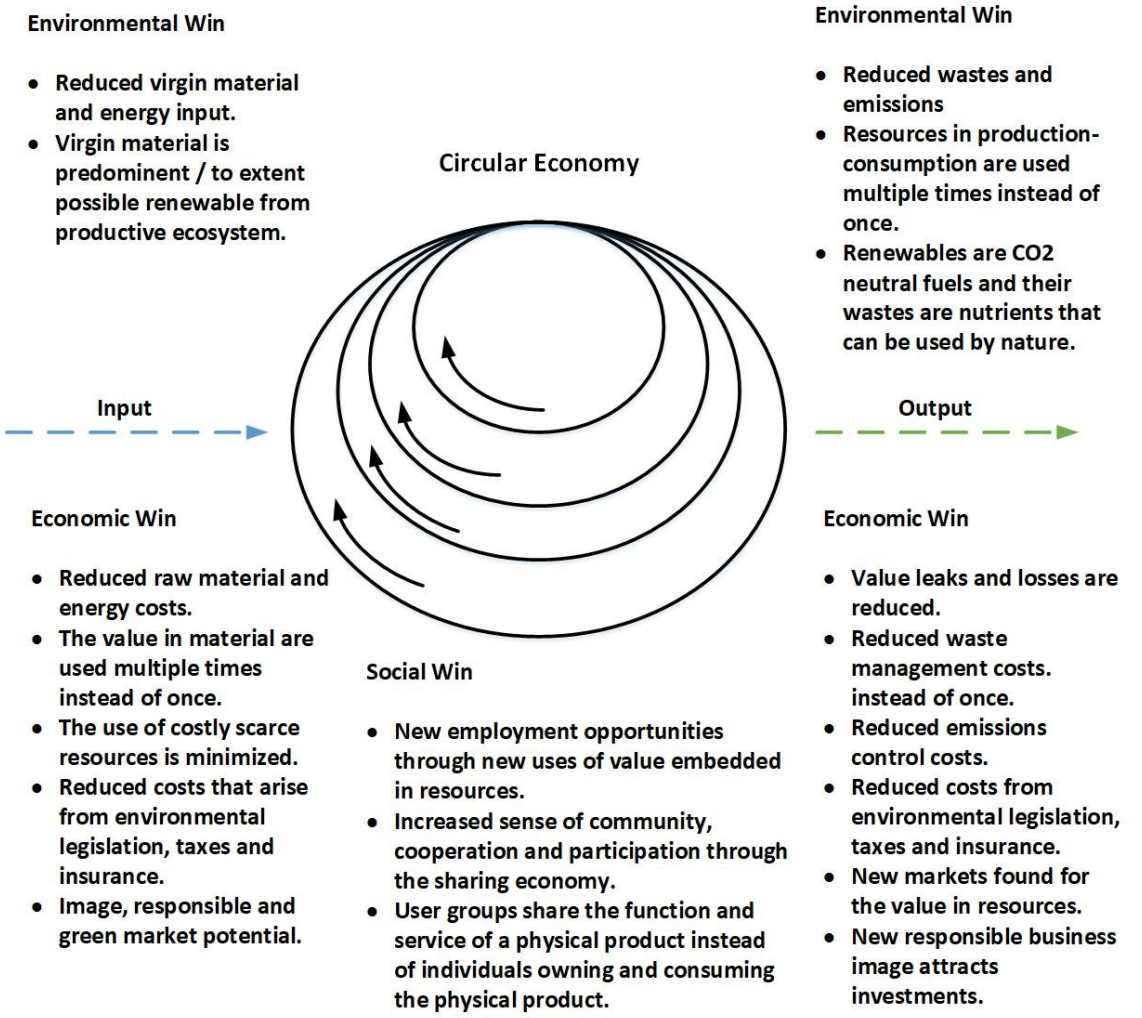


Figure 04. The win- win potential of circular economy (Korhonen et al., 2018).

As illustrated in the figure, Korhonen et al. (2018) suggest that successful circular economy contributes to three dimensions of sustainable development, economic, environmental and social. The framework distinguishes the benefits according to the phase that the material or resources are used in a process. For example, the environmental benefits of practicing CE are viewed with respect to the resource scarcity, while the benefits at the output are referred to minimizing waste and exhaust. Moreover, Ellen MacArthur Foundation have used the approach of surveying individuals about willingness to use various retail solutions, so the results could be used as a driver for retail business market to shift to circular business model. Accordingly, the consumer market for circular economy had expressed potential for contributing to the models if:

- The services are well established to provide convenience, transparency, and trustworthiness,
- The economic benefits are impressive.

- Rewarding systems are implemented.
- The models help taking care of the environment and the community.
- Personal requirements such as the opportunity to meet like-minded people are met.

However, the circular economy is recommended for the communities and businesses to follow, the guiding principles and models are suggested and the value propositions are made by legislation as well as academic researches. However, the perceived customer value of the solutions emerge through circular economy is yet to be explored and constructs the objective of this research. Exceptionally, Antikainen et al. (2018) have conducted their study on consumer groups to explore customer value in practical, economic, and personal dimensions for circular economy services in consumer market. However, the customer perceived value as detailed by Antikainen et al. (2018), justifies values with psychological sacrifices that have to be made by adapting to share economy model for consumer goods.

2.7 Circular Economy Business models

Lüdeke- Freund (2010) and Osterwalder et al. (2010) describes that business models are based on three elements; value proposition, value creation and delivery, and value capture. However, as an approach of sustainable business, the circular economy business models should satisfy all direct and indirect stakeholders such as shareholders, employees, customers, pressure groups and communities including future stakeholders. Additionally, Bocken et al. (2016) recognize three fundamental strategies for cycling resources as;

1. Slowing resource loops
2. Closing resource loops
3. Resource efficiency or narrowing resource flows

Firstly, slowing resource loop denotes extension or product life cycle by repairing and remanufacturing and design of products to last longer possible to slow down the flow of material or resources. Secondly, the enabling circularity of material and resources by recycling at the end of life of the products closes the loop between production and disposal. Finally, resource efficiency is achieved using the reduce strategies of using fewer materials and resources on products (Bocken et al., 2016). The business model strategies corresponding to the groups as developed by Bocken et al. (2016), Bocken et al. (2014) and Bakker et al. (2014) are illustrated in Table 01.

Table 01. Circular economy business strategies developed by Bocken et al. (2016), Bocken et al. (2014) and Bakker et al. (2014).

Business model strategies for slowing loops	
Access and performance model	The consumption of goods without owning physical products. Ex. Sharing economy.
Extending product value	Make use of residual value by returns or collection of products between distinct business entities. Ex. Re- manufacturing or returns.
Classic long- life model	Providing long-product life. Ex. Using product design for durability or repair services.
Encourage sufficiency	Encouraging reduced end-user consumption through durability, upgradability, service, warrantees and marketing strategies such as no sales commissions.
Business model strategies for closing loops	
Extending resource value	Providing new forms of value after use by collection and sourcing end of life materials or resources.
Industrial Symbiosis	Make use of residual output by passing on to another process.

Additionally, as for narrowing resource flow, the use of renewable resources reduces the use of non-sustainable product flow. However, Ellen MacArthur Foundation (2013) suggests encouragement strategies to be included in the CE business model such as deposit payments or leasing models to encourage product returns, warranties offered to concerns about refurbished goods, and transparency of services, ‘win-win’ leasing contracts and effective marketing to gain a competitive advantage from alternative solutions. Further, Ellen MacArthur Foundation suggests business models for the consumer market as shown in Figure 06.

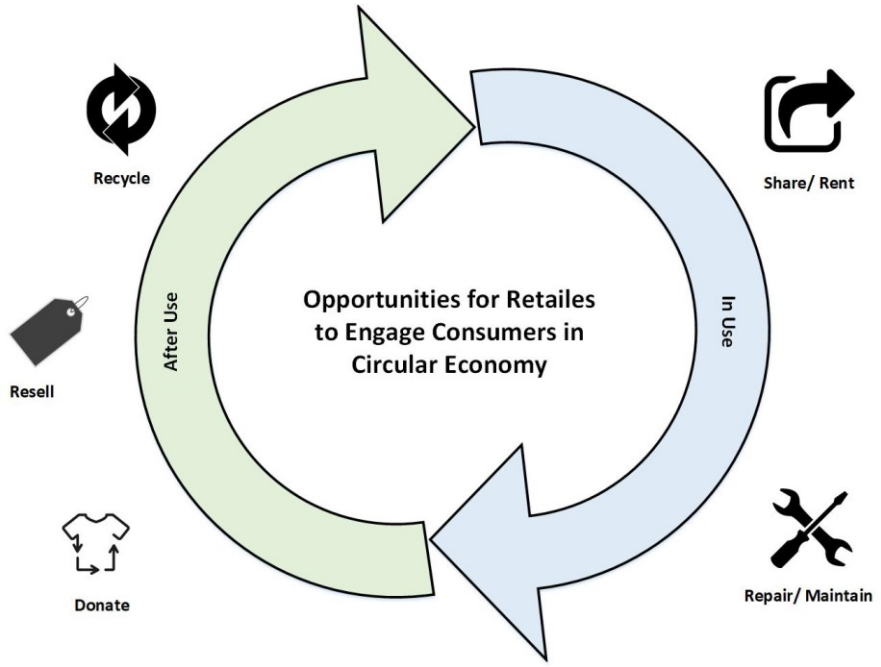


Figure 05. Circular economy business models in consumer market, from Ellen MacArthur foundation archives.

As demonstrated by the figure, the business models are defined within two phases of the product life cycle; after use and in use. Recycling, reselling and donations are after use business models while share/rent and repair/maintenance are in- use models in the consumer market. Correspondingly, the models in the business market can fundamentally be identified as:

1. Renovate and resell
2. Surplus selling platforms
3. Waste management services
4. Producers of alternative sustainable solutions

First, renovate and resell business models can involve with the collection of material and goods that have lost the value of their original purpose. The business models include processing, reconditioning or renovating the material or goods to bring back or create new value and purpose, then resell in the circular economy market. Therefore, these business models can be following the strategies of extending product/resource value that either slowing or closing resource loops. For example, the use of sufficient quality products and components by reconditioning may be considered as slowing the resource loop by bringing back to life while finding a new value to the material may be considered closing the resource loop. Additionally, the models of sharing economy could also belong to renovate and resell type, due to the high maintenance services that the models contain

to prolong the lifetime of the goods. Thus, renovate and resell business models may also be considered to follow the access and performance strategies of CE models.

Second, surplus selling platforms involve the collection of surplus material or active collaboration of surplus suppliers to a selling platform, to sell the surplus in the consumer markets. The models may follow the close-loop strategies of extending resource value and industrial symbiosis by providing new forms of value to the residue and passing on the residue to another process.

Third, waste management services offer integration of a service module to activities in the operational level of production and process lines, to manage and minimize waste of the material in use. The model type may reduce waste by extending the value and/or by encouraging sufficiency using the waste management service. For example, services such as monitoring and maintenance can optimize the usage of the material, reduce waste, achieving the strategy of encouraging sufficiency at the same time.

Finally, producers of alternative sustainable solutions are the businesses that originally produce more sustainable products that specifically substitute an established product or a product type in the market. In other words, the virgin material is chosen renewable to adhere to the productive ecosystem. In general, circular economy businesses are highly innovative startups with a novel value proposition to both business and consumer markets. Moreover, circular economy based businesses are more likely to disrupt consumer markets due to newfound values for residual material and products.

3. RESEARCH METHODOLOGY

3.1 Research Method and Design

Although the objective of this report is to explore customer value of circular economic offers for research purposes, the researcher used a similar strategy to value assessment, typically done in the industry by suppliers, as Narus and Anderson (1998) suggested. As this research's focus is to create a novel theory in customer value of circular economy, the explorative research approach appeared appealing to serve the purpose. The theory-building process may use concepts, framework or propositions, to emerge parsimonious, testable and logically coherent theory (Eisenhardt, 1989).

The research question remains: *what customers value in circular economy solutions?* The concrete answers can only be obtained by reaching out to those firms that have chosen circular economy solutions and by questioning the personnel who are responsible for strategic decision- making. In other words, it is a case study required when a deep investigation of a contemporary phenomenon is conducted within its real-world context, especially when the boundaries of phenomenon and context are not definite (Yin, 2014). Moreover, Eisenhardt (1989) believes that case studies have a strong likelihood of generating new theory, among other objectives such as providing descriptions (Kidder, 1982) and test theory (Pinfield, 1986; Anderson, 1983). Upon the variety of circular economy business models and corresponding offers, the researcher chose to underpin the research on multiple company cases.

Multiple case studies often are more compelling as well as more vigorous, compared with single case studies which are more suitable for a stand out phenomena (Yin, 2014). However, this research investigates the phenomenon of customer value in the context of circular economy business, needs to figure out the dimensions and degrees of the phenomenon in different cases. Therefore, as Yin (2014) further describes under the characteristics of multiple case studies, that the research needs to follow the replication logic of a singular design on multiple cases.

The experimental nature of the research leads the researcher to design a research tool that extracts answers to main research questions, simply in high –level through to a comprehensive level, letting the data to freely expose and contribute in the research design instantaneously. Hence, a singular data extraction design executed on multiple cases was predicted to reveal replicated findings within case groups, and replicated theory with divergent findings between case groups. The illustration of the process

derived from Yin (2014) is shown in figure 06. The procedure suggested by Yin was altered to relate to this research.

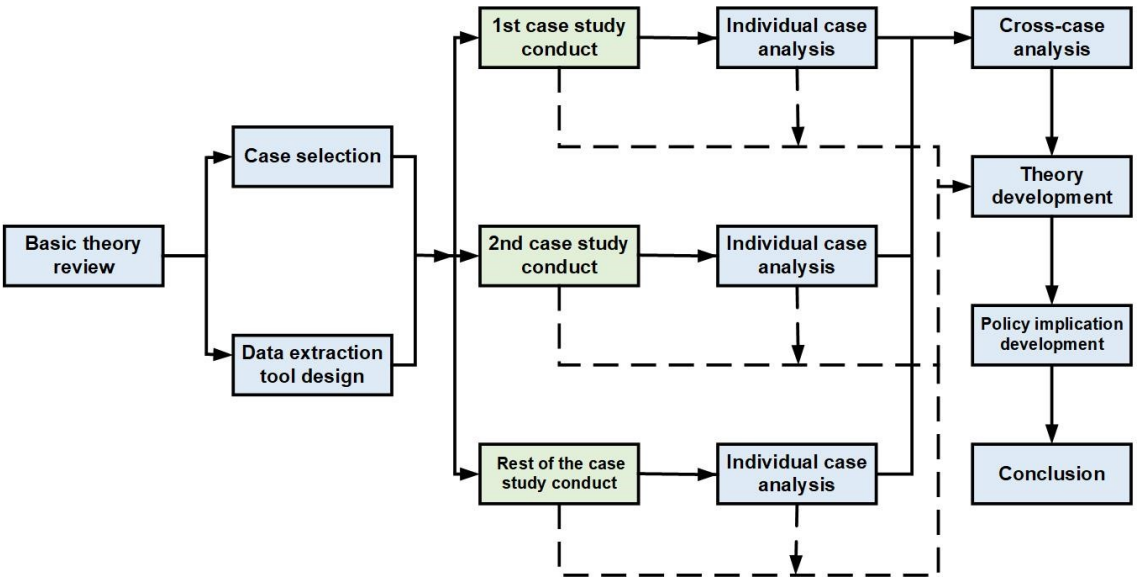


Figure 06. Research design and procedure (derived from Yin, 2014).

The figure depicts the sequential procedure of the research starting from the existing literature review that bases the study. The review helped the construct of a definite objective as well as the design of the data-gathering tool comprehensively. The selection of cases was then taken place with the assistance of supervisors of the research, to compliment the case categorization, which was also based on the learnings of existing literature. Subsequently, the case study conduct was executed one by one, in the order of responses the researcher received from the case firm personnel by cause of their conveniences. As indicated in the figure with dashed arrows, the analysis of data and development of theory took place during case studies based on field notes, team discussions as well as individual and cross-case analyzes, other than in the main stage of theory development. Additionally, the case study conducts were performed on customer firms due to the evaluation of customer value phenomenon; hence, case study conduct blocks visualized in the figure are rather the customer cases. Finally, the development of policy implication that elaborates the means of extents and limits of the theory took place and was followed by the conclusions drawn.

The broad scope of the research question and the heterogeneity of the circular economy businesses lead the researcher to group the cases for analysis and theory-building purposes. The grouping was based on the natures of value creation and value delivery (offer types) in circular economy business models and predicted replication and deviations of the findings. However, gathering data from the customers of the case firms instead of the case firms themselves adds another tier of analysis to the study. As a

result, the design of data gathering and the findings were subjected to an additional grouping than in theory-building, considering the clarity and easiness of data gathering and the analysis. Figure 07 visualizes the use of categorization in different phases of the study.

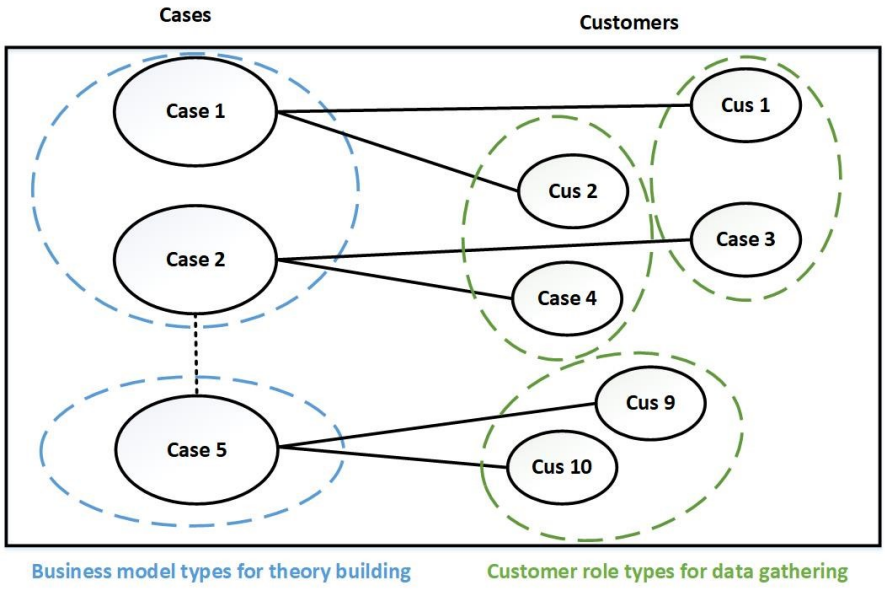


Figure 07. Categorization of cases under the study.

As shown in the figure, the categorization of customer firms is distinct from the categorization of the case firms. The customer role categories were recognized and used on interview guide designing for the easiness of data gathering. Accordingly, the semi-structured interviews were designed per customer role category in circular economy. The reasoning of selecting interviews and the interview design will be discussed in section 3.3 about data gathering. However, a singular interview design was further customized to four different versions according to the customer role.

3.2 Case Selection

Contextualism is another characteristic in qualitative research, to take important account on selecting data sources. According to Bryman (1988), wider the social sphere that the data is collected, better the events can be understood. However, Eisenhardt (1989) suggests the use of research questions to define the scope of the data to be gathered and the importance of staying within the scope to make the optimum effort to gather the necessary data. Therefore, the researcher opted for including cases to cover the typical business models and offers in circular economy, endorsing fair collection of data. The data scope definition based on the research question and the derived data source characteristics is illustrated in Table 02.

Table 02. Rationale for data scope definition

Research question macro-level	**Research Question micro-level**		**Data source characteristics**	**Data scope definition**
Circular economy business	B2B		Organized entity	Firms
	B2C		Individual	Consumers
	Circular economy		CE practices	CE context
Customer Value	Value dimensions		Customer Perspectives	Business models and customer roles
	Approaches to customer value definition	Meeting customer expectations	Beneficiary	
		Close relationships	Dealer	
		Supplier value	Supplier	
		Value co-creation	Participant	
		Service dominant logic	Service beneficiary	

As shown in the table, the research question was solely used to define the data scope for the study. The research question, in a nutshell, was used to define the macro-level research question: What is customer value in circular economy?, which is further described in the micro-level view. As it is discussed in the research gap illustration in the introduction of this report, the research question stretches in both business and consumer markets due to the close relationship between the two in certain business models of circular economy. Moreover, prior research on customer value revealed the entities such as value dimensions and value creation approaches, which together lead to defining the characteristics of the data sources needed. Therefore, the resulting data scope definition described sourcing the customer or partnering firms of the firms that practice circular economy principles under different business models, as illustrated in the last column of the table.

Moreover, sampling of the population is crucial in selecting cases (Eisenhardt, 1989), as the cases need to correspond to the data scope definition. However, it is also advised by Eisenhardt (1989) to randomly select markets in case of generating theories, since the control over variations in the markets is not necessary for building theory, as for statistical researches. Thereby, the researcher overlooked the industrial categories and markets, and constructed a different categorization of cases based on the facts of data scope definition. Eisenhardt (1989) encourages case categorization due to several facts such as, replication of findings within the category, and enhancing the generalizability of the theory. Consequently, the researcher used business model categorization of circular

economy discussed in theoretical background, to select cases for this research. Based on adequate study on the firms' official websites, cases were picked and divided into suitable categories. Accordingly, Table 03 demonstrates the case firms selected for the study and the categorization of their business models.

Table 03. Case selection and data source selection with categorization details.

Business model category	**Case**
Renovate and Resell	-
Surplus selling platforms	ResQ Club
	Netlet Oy Ab
Waste management services	Fluid Intelligence Oy
Producing alternative sustainable solutions	Verso Food Oy
	Gold and Green®

The first case that was studied is ResQ Club, a startup firm of which the marketing focus is based on reducing consumer food waste by facilitating sales of surplus food from restaurants and grocery stores through a software platform. The sustainability found in waste reduction (Resq-club home page, 2019) and attractively low prices have been crediting the business a great deal of popularity in the consumer market, and subsequently, the business market of foodservice and grocery industries that provide the surplus food as partners. According to the value creation and delivery nature of the service, ResQ Club naturally belonged to the second business model category; surplus selling platforms that involve customers in both business and consumer markets. The platform is accessible and interactive to both parties, where the partners can publish their daily food surplus in discounted prices and consumers can view and purchase the published surplus through ResQ mobile application. Hence, the opportunity of interviewing consumers can be taken through ResQ Club and the second case that is introduced next, which are surplus selling platform cases.

The second case, as mentioned above similarly belongs to surplus selling platforms-business model category. Netlet Oy Ab, a startup found in 2016, offers to save disposal cost of construction site surplus, effective and efficient clearing of site space and reduction of environmental impact by construction surplus (Netlet company info, 2019). The service offers easy pick up of construction surplus from construction sites, and make the picked surplus available on the online selling platform rakennusoutlet.com (Netlet

online selling platform info, 2019). Therefore, unlike ResQ Club platform, Netlet selling platform does not allow interaction between the partners and the consumers.

The third case was picked from waste management category of business models in circular economy, as also illustrated in the table. Fluid Intelligence Oy as mentioned in Fluid Intelligence home page, 2019, offers heavy machinery industry and logistics to maximize its operational reliability through fluid monitoring and analysis, further resulting in oil waste reduction. Hence, most of Fluid Intelligence's customers belong to the business market in energy and heavy industry, infrastructure and original equipment manufacturing (Fluid Intelligence customers, 2019).

The fourth case, Verso Food Oy, is a producer of alternative sustainable solutions that offers products based on Fava beans. The fava bean products by Verso Food Oy was initially intended to substitute meat consumption with Härkis®, focusing on vegetarian consumers (Verso Food- what we do, 2019). However, the popularity of the products and the innovativeness of the firm through product variety (Beanit-about 2019), have evolved the offers registered under the names; beanit® and Härkis®, that still are based on Fava beans, to satisfy broader market including non-vegetarian consumers. However, from circular economy perspective, increasing consumption of the plant-based protein source as a substitute to meat, saves farmland operations, water, and transportation, which leads to deforestation, droughts, and greenhouse gases.

Finally, a case firm in the same business model category; an alternative sustainable solution provider, Gold and Green®. The firm offers a substitute for livestock agricultural products, same as Verso Food Oy, but with pulled oats®. The firm promotes healthy eating, with the value proposition for vegetarians, through the founder's personal story of innovating pulled oats that satisfied the need for a substitute protein source for ground meat products. The innovative solutions and brand promotions cause rapid growth of their market, increasing the consumption of plant-based protein, in substitution to meat products. However, as shown in the table, a firm under renovate and resell could not be accessed to interview, forming a limitation in the study.

3.3 Data Gathering

Eisenhardt (1989) calls the methods of data gathering as the instruments or protocols of data collection. Although participant-observation or field research is widely used in qualitative research, unstructured interviewing that provides certain freedom of expression to informants is also a popular method of gathering data (Bryman, 1988). Under the light of shared knowledge by Bryman (1988) on qualitative research practices,

the researcher chose unstructured interviewing as the most convenient method to mainly rely on, in addition to referring existing literature, official company websites, as well as a bit of participant-observation.

In the value assessment practice, the field value-in-use method is similar to participant-observation and indirect survey questions to unstructured interviewing. Since the informants were mostly decision making executives in their job roles, those of interviewed were much occupied with sophisticated responsibilities, leaving the researcher to choose an optimal method that did not use time extensively and helped the researcher gather a rich amount of data at the same time. However, whenever the time and personnel permits, the researcher was fortunate to possess the role of participant-observer which allowed veriying data as well as generate own perspective to help the researcher in data analysis.

Group discussion or focus group (Anderson and Narus, 1998) is recognized by Bryman (1988) as a form of unstructured interviewing, involving multiple informants responding collaboratively. Therefore, the researcher also took the chance to conduct a focus group interview that lead to a collaborative discussion. The trending method in qualitative research also allows observation in addition to unstructured flexible discussions. Bryman (1988) also suggests that one need not limit to a certain method of data collection but always it is practical to be open for several, in addition to participant-observation or unstructured interviewing. Such as referring documentary material, even structured interviews, and postal questionnaire surveys. Additionally, the life history method, that uses diaries (Bryman, 1988) and project files (Keränen and Jalkala, 2013), was also an interesting method that the informants used to prepare for interviews to reveal data which could have been forgotten by the time of the interview.

The long drives to visiting sites influenced the researcher in taking colleagues with her for some interviews, providing the role of devil's advocate, as recognized by Eisenhardt (1989) for the scenario of interviews in teams. A devil's advocate expresses the opinion that catalyzes debatable arguments or tests the strength of opposing arguments. Eisenhardt (1989) further stresses the vitality of interviews in teams since such interviews enhance multiple observer perspectives on the topic. As the qualitative data gathered by interviews help the researcher devise reasoning, logic, and relationships between the gathered data itself, additional perspectives from colleagues broadened this analysis that occurred during the data gathering process. Eisenhardt (1989) introduces a noteworthy characteristic to theory-building research; the overlap of data collection with data analysis. The analysis during taking field notes, modification and addition of data to the analysis after transcribing interview audio recordings and after performing new

interviews were used as means of achieving this overlap in this research. Taking a head start analysis simultaneously with the process of data gathering comprehends the overall analysis with every impression that occurred throughout the research, which later may turn out to be important information necessary for theory-building.

3.3.1 Data Gathering Sources

As section 3.2 implies, the data scope definition suggests sourcing data from the customer or partnering firms of the case firms to explore the value perspective of customers authentically. Due to the heterogeneous nature of the roles of involved partners and customers, the researcher created a categorization of customers that is independent of the case firms' business models, for easier data gathering purposes. The potential customer roles corresponding to business models in circular economy are elaborated in Table 04.

Table 04. Customer roles involved with business models in circular economy

Business model	**Customer roles involved**
Renovate and Resell	Donor/seller of used material/products
	Buyer of secondhand/ reconditioned products
	Chooser of alternative sustainable solutions
Surplus selling platforms	Donor/seller of surplus
	Buyer of surplus
Waste management services	Waste management service integrator
Producing alternative sustainable solutions	Chooser of alternative sustainable solutions

As shown in the table, each business model conveys different roles to customers involved in their circular economy operations. The business models renovate and resell and surplus selling platforms share common characteristics among their customers. Specifically, in both categories, there exists a donor or a seller on one hand, and a buyer on the other hand. The first kind is alternatively defined as partners in the business context. However, the researcher created two categories by merging the customer roles with similar natures of involvement. Therefore, the donors or sellers were put to one category and the buyers to another. In contrast, the waste management service providers and the alternative sustainable solution producers possess only one kind of customer role on the receiving side of the service or the product. As a result, the customer categories turned out as;

Customer role 1. Donor/seller of used material/products/surplus

Customer role 2. Buyer of secondhand/ reconditioned/surplus

Customer role 3. Waste management service integrator

Customer role 4. Chooser of alternative sustainable solutions

Additionally, compared with the business market in general, circular economy businesses involve with consumers more often, due to the closed-loop nature of certain business models such as renovate and resell and surplus selling platforms. Hence, the research was naturally extended to hear the consumer voice in applicable customer categories of donor/seller of used material/products/surplus and buyer of secondhand/ reconditioned/ surplus. Another reason to study the consumer market is the possibility of cross-analysis of the data shared by the partners with the consumers' data. Consequently, the list of customer firms and consumers to approach, with the details of their market type, industry and the category are further demonstrated in Table 05.

Table 05. Interviewed customer details and customer identifiers for the research

Case	Customer market	Customer Industry	Customer identifier	Customer category
ResQ Club	Business market	Grocery	Customer 1	Category 1
	Business market	Foodservice	Customer 2	Category 1
	Consumer market	N/A	Customer 3	Category 2
	Consumer market	N/A	Customer 4	Category 2
	Consumer market	N/A	Customer 5	Category 2
Netlet Oy Ab	Business market	Construction	Customer 6	Category 1
	Consumer market	N/A	Customer 7	Category 2
Fluid Intelligence Oy	Business market	Chemical production	Customer 8	Category 3
Verso Food Oy	Business market	Grocery trade	Customer 9	Category 4
Gold and Green®	Business market	Grocery trade	Customer 10	Category 4

The customers were picked purposefully, overlooking the industries that the customer firms belong to, as advised by Eisenhardt (1989) for theory generation. Moreover, the identities of the customers were decided to keep enclosed, hence alternative aliasing identifiers were assigned to each customer as further illustrated in the table.

In the case of ResQ Club, the researcher conducted five interviews, two partnering firms and three consumers. The partnering firms were carefully sampled to individually represent grocery industry and foodservice industry (i.e. restaurants). Subsequently, one customer was the owner of a grocery store in a leading grocery store chain and the other customer, the owner of a café restaurant in a café restaurant chain, which promotes healthy food consumption. The customers are identified as Customer 1 and Customer 2 respectively, for this research purpose. The consumers that were interviewed were

picked from two geographical areas, to add more fairness to consumer case sampling. The consumers possess the identifiers Customer 3, Customer 4 and Customer 5 as illustrated in the table.

In the Netlet Oy Ab case, the researcher interviewed one partner, which is a construction company that gives away surplus from their construction sites. The partner is named as Customer 6 for this research. Moreover, a private customer (consumer), who buys construction surplus from the online selling platform was also interviewed. In this report, the consumer is known as Customer 7.

Customer 8 was an oil waste management service integrator of Fluid Intelligence Oy. The customer operates in chemical production industry and produces various gases such as oxygen, nitrogen, and hydrogen for industrial, healthcare and safety purposes. The interview was conducted in the production site with the site's sole Technical and Development Manager. Additionally, the researcher found the opportunity to observe the sensor-equipment that Fluid Intelligence had installed for monitoring the oil in operation, on heavy compressors used for customer's gas production. Fluid Intelligence monitors and analyzes the flowing oil condition and in case of anomalies detected, the site manager is alerted by communication through the phone.

The researcher was able to access a Verso Food customer in grocery trade industry and explore what values the customer sees in Verso Food Oy product offerings. The customer is a rewarding sustainable business in the world ranking, hence adds a high credit to this research by their contribution. As a grocery trader, the customer accepts products to be sold on the shelves of their grocery chain and claims to work together with the suppliers in product innovation, marketing, logistics, and sales. For this research, the customer is named Customer 9. Furthermore, the same customer was interviewed for the case of Gold and Green® as well. However, for data separation purposes, the researcher named the customer with another alias as Customer 10.

3.3.2 Data Gathering Tool Design

The main characteristic of qualitative research is encountering perspectives (Bryman, 1988). When designing the interview guide, accounting perspectives, the researcher allowed the informant to introduce themselves, their role in the customer firm (and demographic information in case of consumers) and most importantly, the extent of knowledge they bore about the case firms in their perspectives. Open research strategy is often argued to provide the opportunity of revealing new knowledge of the researcher's interest. Therefore, Bryman (1988) adds another characteristic to qualitative research, which is also endorsed by Gioia et al. (2012) for practicing ground theory, which is

flexibility and lack of structure. The understanding under the lack of structure is that the researcher must be able to recognize the relevance as well as irrelevance and subsequently, redirect to the formulation of the focused problem.

The interviews were designed in three phases. In the first phase, due to the determination of achieving unstructured nature, the researcher formed open questions under the influence of basic social science concepts for fundamental human qualities, individual differences as well as the effect from collectivism found in Kienzler (2018). The questions were formed giving adequate account to informants' job roles and experience, as Gioia et al. (2012) recommend for using ground theory. In the second phase, the interview guide was influenced by a portion of structure to it, to adequately cover the necessary information in need. Thereby, the researcher added a check system to focus on each question on what did not come up while rambling, and then trigger the specifics using sub-indirect questions. Bryman (1988) acknowledges the possibility of missing necessary areas by conducting unstructured interviews and encourages second interviews to fill in information gaps. However, due to the limitation of time and resources in this research, the researcher chose to include the check system in the interview guide, which made the design a semi-structured, still accommodating free answering necessary for inductive research approach. The last phase took the chance to customize the interview guide according to different customer categories that the researcher encountered. Therefore, the semi-structured interview guide was designed in four different versions to provide easiness in the interview conduct. Figure 08 illustrates the distribution of the customer interviews to the four different versions of interview guides.

Version 1	**Version 2**
Customer 1 Customer 2 Customer 6	Customer 3 Customer 5 Customer 4 Customer 7
Version 3	**Version 4**
Customer 8	Customer 9 Customer 10

Figure 08. Customer distribution among the versions of interview guides that were designed for four customer categories.

As also demonstrated in the figure, ten interviews on ten customers were conducted in four different versions of the interview guides. The interviews were planned to be conducted under one hour each, to efficiently use the interviewees' time taken from their

busy schedules. Besides, the interview questions were designed to effectively extract answers to the point, with space to adequately elaborate the facts. The questions guided the interviewees through four clear sections, which hindered the discussion from rambling outside the point. The first section of the interview consisted briefly explaining the interviewee about the purpose of the interview, what is expected from the interviewee in instructional form and a request to introduce themselves in a certain format that supports the interview with necessary background data. However, it is important to note that the whole conversation and the following of the guide were performed casually to foster the required openness in explorative researches and to seek individual/collective perceptions (Gioia et al., 2012). Hence, the researcher would rather claim that the procedure was executed with tactics than structure. The second section of the interview was designed to harvest the justifications and perspectives that turn up when making decisions by the personnel and the organization. The researcher made sure to direct the questions specifically to the circular economy solution the customer is employing. The third section encouraged the interviewee to explain the setting complemented with circular economy solution in the organizational operations, after the acquisition. The final section of the interview sought the relationship attributes between the case firm and the customer firm under questioning, and any other matters the interviewee needed to mention.

The research gap that bases the research suggests the researcher to generate novel theory on customer value in circular economy businesses. Hence, as Eisenhardt (1989) suggests for building new theory, the interview design is best begun with no theory under consideration, nor hypothesis to test in the research gap, to allow free emergence of the theory. However, The reviewed theory on customer value and circular economy business models serve the research as the specification of construct (Eisenhardt, 1989) that helps the research gain firmer grounding for the new theory.

The content of the interview guide was based on two features; the literature reviewed (about customer value, value assessment, and customer value encounters) and the category of the customers being interviewed. The main structure of the interview design was based on the steps of customer decision- making recognized by Chi et al. (2009), as discussed in the theoretical background. Thereby, The thinking behind using the purchase intention was to recall value concerns at each stage and gather data for the study. Accordingly, the interviews progressed staring from gathering background information, then continuing with the questions related to each step of making the decision. For example, the question *“How did you handle the situation before deciding to go for *customer firm*?”* intends to reveal values at problem recognition and

subsequently, to detect the values in the functional dimension. Secondly, the questions *"Tell me briefly about what you know about *case firm* and what they offer to customers in general."* and *"Where did the idea come from?"* seek for the drivers of the decision and the values encountered at information search step. Thirdly, the questions *"How did you handle the situation before deciding to go for *customer firm*?"* and *"Was there any alternative offers or own strategies from which you had to choose?"* search for the value concerns at alternative evaluation step to identify relative values that deliver competitive advantage. Fourthly, the questions *"What made you go for *customer firm*? How would you justify the decision made to go for it?"* justifies the values concluded the time the purchase decision was made. Finally, the questions *"How does it work now with the offer? How would you describe the benefits/conveniences? On a daily basis?"* followed by the questions related to value creation and delivery approaches seek for value encounters at post-purchase behavior or value- in use phase.

Other than the content, an intent aspect was considered in designing the interview guide. The intent regarded the use of social scientific tools to grasp data that might not be revealed by directly asking from the interviewee, else to verify data in case otherwise. Social scientific intellect bases the qualitative studies, especially in the studies on individuals or communities (Bryman, 1988). Although this research investigates on firms, the interview data gathering method lead to conducting the study with individuals who function as the decision-makers or are part of the executive groups running the companies/ business units. Hence, the researcher used questions that included indirect intents, in addition to the content that reveals straightforward data. For example, the use of question *"Tell me briefly what you know about *the case firm* and what they offer to customers in general."* intends to bring out what the customer appreciates about the case firm and its solutions the most, as humans tend to remember or know the bits of information they value the most, about anything. Subsequently, the researcher expected to detect hints of prioritized values by the customer, in relevance to the offer under discussion. Table 06 explains the collection of questions included in the interview guide and the corresponding indirect intents and direct contents.

Table 06. Interview questions and the rationale.

Question	Indirect intent	Direct content
Could you briefly explain your position in *customer firm*, your job role, how you do it in practice, and the decision making process?	N/A	Background information necessary for analysis.
Tell me briefly about what you know about *case firm* and what they offer to customers in general.	To detect customer's greatest values in relevance to the offer.	Customer's knowledge about the case firm and its offers.
How did you handle the situation before deciding to go for *customer firm*?	To seek if resonating focus of value proposition was offered by the case firm.	The motive to choose the offer
What made you go for *customer firm*? Where did the idea come from? How would you justify the decision made to go for it?	To detect personal values that may have dramatized when making purchase decision.	Reasons to choose the offer. Value dimensions raised at purchasing phase.
Was there any alternative offers or own strategies from which you had to choose?	To explore value dimensions at purchasing phase, further.	The existence of better or next best alternatives, and reasoning behind the choice.
How does it work now with the offer? How would you describe the benefits/conveniences? In daily basis?	N/A	The offer's value in use.
How important is this collaboration/service now to the business? Do you want to continue the collaboration in long term? How do you see the future with *case firm*?	To explore value in use dimensions further.	Importance of the solution to the customer.
Can you recall any supplementary benefits of conveniences that came along with the main solution? Were there any surprising benefits?	To explore value in use dimensions further	Augmented features of the solution may be revealing unexplored value dimensions.
How would you describe the experience of working with the *case firm* personnel? How is the business relationship going?	N/A	Relationship value
Has the offer evolved since started? Do you have any impact on the evolvement?	N/A	Value co-creation

As demonstrated in the table, all questions did not necessarily contain indirect intent. Moreover, it is important to note that the questions did strictly adhere to the script but was conducted casually and with deviations to foster free speech necessary for explorative type of research. However, the full version of the interview guide is attached in Appendix A of this report, for further exposure. The full version includes statements made by the researcher to provide necessary information and guidance to interviewees. Additionally, the guidance includes sub-questions that were raised in case of the

absence of predicted data, as well as all the customized versions of the main questions according to the customer categories and supplier value creation methods. The interview guide with version details according to customer categories is attached as Appendix A.

3.4 Data Analysis

The impressions and ideas that the researcher obtains during the data gathering processes as Eisenhardt (1989) elaborates could be the cross-case comparisons, hunches about relationships between cases, anecdotes, and informal observation. However, a proper analysis based on a method proven to be workable is important to make sense of the novel theory with systematically expressed rationale. The rationale of the analysis in this research was based on the tactics Eisenhardt (1989) suggests;

1. Grouping the cases to categories, then analyzing similarities within coupled goups and differences inter-group.
2. Selecting pairs of cases, then list similarities and differences between each pair.
3. Divide data by the data source.

The researcher chose the tactic 1 from Eisenhardt (1989), also taking the recommendations of case categorization into account. The division is suggested to base on the research problem, existing literature or researcher's choice upon reasonable convenience. Thereby, the researcher followed the same categorization used for data gathering that was based on all three recommendations.

Theory is a statement of concepts and their interrelationships that shows how and/or why a phenomenon occurs (Gioia and Pitre, 1990). Theory-building in organizational study is identified by Gioia and Pitre (1990) to follow a paradigmatic approach that uses qualitative data to inductively develop ground theory. However, the coding of qualitative data approaches is endorsed by various authors such as Strauss and Corbin (1998) and Burrell and Morgan (1979) for the type of interpretivist theory-building, among others. Interpretivist theory-building is used to form tentative speculations about organizational structural processes to construct or deconstruct by consultation with informants. Furthermore, coding is defined by Miles and Hurberman (1994) as:

“To review a set of field notes, transcribed or synthesized and to dissect them meaningfully while keeping the relations between the parts intact, is the stuff of analysis. This part of the analysis involves how you differentiate and combine the data you have retrieved and the reflections you make about this information.”

Correspondingly, the researcher chose to use a holistic approach that was first appeared in Gioia and Chittipeddi (1991) and evolved in Corley et al. (2004) to develop an inductive concept that meets high standards for qualitative rigor, well known as Gioia method of ground theory. The analysis according to the method is suggested to base on a three-level coding process;

1. First-order analysis that expresses the informants' raw information being subjected to categories due to similarities of the details under the rationale of analysis.
2. Second-order theoretical level of themes, dimensions or larger narratives that explain the phenomena expressed by the related first-order categories.
3. Aggregate dimensions when the second-order themes reach theoretical saturation.

Yin (2014) accredits case studies to have numerous levels of analysis within one study of single or multiple cases. Under the consent of the example studies brought up by Eisenhardt (1989) as such, the researcher initially divided her analysis as partnering firms and consumer levels. However, this division of analysis helped the researcher in cross-analysis of the data revealed in both levels at each case applicable. Figure 09 illustrates the data analysis structure of category 1 customers based on grounded theory development by Corley et al. (2004).

Figure 09. Data analysis structure for category 1 customers based on grounded theory development derived from Corley et al. (2004).

The researcher initiated the analysis by extracting the informants' data from the transcripts of the interviews, according to the intent and content model that based the design of the interviews. The information extraction was done in individual customer cases to recognize unique patterns emerging from each case before generalizing into categories (Eisenhardt, 1989). Secondly, the researcher structured the information as suggested by Gioia method of grounded theory development, in categories of customer roles, due to the predetermined similarities in data and the suggestion by Eisenhardt (1989). Thirdly, a cross-analysis was performed between customer role category 1 and 2 due to the relativity to the business model; surplus selling platform, using the information shared about each other.

The first part of the analysis as illustrated in the figure develops a theory on customer value dimensions in the business market of surplus selling platforms. Hence, as suggested by Strauss and Corbin (1998), the qualitative data analysis strategy of theoretical comparison is used to identify the value dimensions; Functional, Economic and Esteem in the business market of circular economy. Additionally, new sub-dimensions were identified based on data analysis strategy; different meanings of word. The informants' replies were analyzed to understand the meanings based on the researcher's knowledge about strategic management and business market management to identify sub-dimensions of main customer value dimensions. For instance, as shown in the figure, the second-order themes are categorized into different sub functional values; value for supporting satisfy customers, value to supporting business strategy and value for supporting operations.

Unstructured interviews open possibility to rambling, which may lead to lengthier meetings than planned, but Bryman (1988) points out that rambling may also provide hints of importance about certain matters. Therefore, the researcher used rambling and fact emphasis to prioritize the data revealed by informants on what they value the most in particular solutions. Consequently, the importance of value dimensions was learned per customer category when analyzing data. For the category illustrated in the figure, high significant value in functional dimension and lower value in economic value was recognized accordingly.

By nature, the researcher did not limit herself to interviews but took up the role of researcher participant by using ResQ Club solution as a consumer to witness a certain restaurant using the platform as a takeaway channel that promotes their food of 100% good quality, under very small discounts. Therefore, it was realized that some businesses might have seen the solution as an opportunity to increase their normal sales, and integrate the solution as part of their strategy. Therefore, particular information

in the first-order concepts is collected using participant-observation and added for the same analysis. Additionally, Yin (2014) encourages using predictions as a method of analyzing data to follow a checking system approach. The existence of emotional value was noted as a contradictory result, due to comparison with the predicted results, not to discover personal or emotional values in the business market.

Similarly, the data analysis was performed on the rest of the customer categories; Customer category 2, customer category 3 and customer category 4. The data structures of analyses for the categories as well as the structures of cross-analysis between category 1 and category 2 is attached at the end of this report as Appendix B. The findings according to the analyses and discussions based on both analyses and findings is discussed in section 4.

4. RESULTS

The study regarded value to the benefits that circular economy solutions provide, as perceived and measured by the customers. Hence, the customer perceived value in this report is discussed in terms of benefits, opportunities, efforts, and costs. The initial expectation of the study was to discover customer value dimensions in the context of circular economy business. However, the research scope was extended also to consumer markets of circular economy, due to the close involvement of the business solutions to the consumer market.

Consequently, the study brought out interesting results in different aspects that are important in understanding the existence of value dimensions discovered in both business and consumer markets. Therefore, the results section walks the reader through the necessary findings that base the understanding of discovered customer value dimensions and the chapter is sectioned accordingly. In this chapter, the first section leverages the categorization of customer roles, to explain the perspectives of customer values in different contexts of circular economy solutions. Next, the second section discusses the value aspects of circular economy business and consumer markets. The third section discusses the probable reasoning of the findings in circular economy business market while the final section further shares insights about how the customer value dimensions in circular economy contribute to the economic sustainability of customer businesses. The quotation of informant replies is presented throughout this section as encouraged by Bryman (1988) to illustrate general points.

4.1 Value Perspectives of Different Customer Roles

The high variety of circular economic solutions with different business models and markets invited complications in defining the context of this customer value research. Hence, the researcher categorized the business models under the study into four domains as explained in chapter 3 and used the categorization in the whole conduct from data gathering, through data analysis to findings, applying the business model categorization to define different customer roles. Defining different customer roles was used to understand the customer perspectives towards particular circular economy solutions. As a result, the researcher captured customers' decision drivers and value perspectives accordingly. The categories of customer role that the researcher encountered:

Customer role 1.	Donor/seller of used material/products/surplus
Customer role 2.	Buyer of secondhand/ reconditioned/surplus
Customer role 3.	Waste management service integrator
Customer role 4.	Chooser of alternative sustainable solutions

First, the circular economy business models for platforms of selling used material/surplus, as well as renovate and resell products involve two categories of customers as donor/seller of used material/products/surplus and the buyer of used material/products/surplus. Thereby, two types of partner/customer roles were identified as donor/seller and buyer. Second, the waste management service business model has one category of customers as waste management service integrators who would like to integrate expertise help in managing waste of own operations. Hence, the third type of customer role was identified there. Third, the models of producing alternative sustainable solutions invite the fourth type of customer role; choosers of alternative sustainable solutions. Under the customer roles, this section will discuss the background details of the customer firms, the circular economic solution acquired and the value perspectives occupied in customers' minds when making the purchase decision, using the solutions as well as customers' future expectations with the solution, according to findings.

4.1.1 Donor/seller of Used Material/ Products/ Surplus

In this research, the cases under donor/seller of used material/products/surplus were limited to the circular economy business model of surplus selling platforms. Accordingly, the cases were related to surplus in construction, grocery and foodservice industries. Therefore, the partners/customers of the solutions respectively were in the construction firms, grocery stores, restaurants on the donating and selling end, while the consumers were on the buying end. However, as donors and sellers, the customer firms the researcher interviewed were a partnering donor of construction surplus in Netlet Oy Ab case, whilst a grocery store and a restaurant were partnering sellers of food surplus in ResQclub case. Summarily, table 07 categorizes the discovered customer values to different value dimensions for the role of donor/seller of used material/products/surplus.

Table 07. Categorization of customer values to dimensions in customer role: Donor/seller of used material/products/surplus.

Functional Values	Economic Values	Esteem Values	Emotional values
Waste reduction method	Saving efforts (time and resources) than alternatives	Becoming a sustainable business	Not harm the environment
Un-interruptive simplicity	Disposal cost savings		
Fast responsiveness clearing site for important operations	Surplus sales		
Use as a sales tool			
Market expansion opportunity			
Good quality surplus for discounted prices			

Firstly, the construction firm that partnered in Netlet Oy Ab case is a specialist in urban development projects, taking over construction projects in cities to build shopping complexes and apartments. Hence, the use of material for such projects is typically quantified in millions of euros. Therefore, the construction waste or surplus as well corresponds in vast quantity, yet negligible for moving to other sites and explicit per project. Hence, the clearing of sites off the pilling up surplus is critical and considered a burden due to inadequate efficiency of existing disposal services as well as the least importance given to surplus and waste management within project operations, in the face of project completion deadlines. Therefore, the customer firm was pleased with the convenience that Netlet Oy Ab service brings to surplus disposal efforts. The fast responsiveness at surplus pick-up and clear spaces from unwanted surplus relieved the customer from the burden of waste disposal activities. Netlet Oy Ab solution is the best alternative to existing solutions in handling waste, such as calling the disposal services which are known to be less efficient and selling surplus on own, which requires a lot of effort and time. The customer did not appreciate any efforts to be paid to handling waste, as there are a lot more important construction operations to which the resources could be allocated. Hence, the customer perceived value as a donor of construction surplus is dominated by the functional convenience the solution brings to daily operations in construction business, by saving time, resources and money that costs in disposing of surplus using existing alternative methods. Argumentatively, the existence of emotional value was discovered in deciding to choose a circular economic solution to take care of construction surplus. The site manager that was interviewed is the initiator of using Netlet

Oy Ab solution in her construction sites and is primarily driven by her personal values for not harming the environment in her professional life. However, using the appealing functional value propositions the solution brings, the site manager intends to establish the solution at the organizational level as well.

Secondly, the grocery store and the restaurant partnered in ResQ Club solution showcased their agendas through selling surplus grocery products and food using the platform provided by the solution. On one hand, in daily operations of the grocery store, a high priority is given for operating lean, by carefully forecasting demand, buying products accordingly, effective marketing methods to sell bought goods and make use of unavoidable surplus using multiple methods and resell. Therefore, surplus sales through ResQ Club solution was simply an additional method of taking care of surplus in a sophisticated manner, compared with donating and throwing away. The quantity of unavoidable surplus of the grocery store is around 1,5% of the turnover. Subsequently, according to the customer, the surplus sales for highly discounted pricing through the solution compensates a negligible amount of costs occurred. Therefore, the customer had eyed on a distinct important value in ResQ Club solution, to enhance the opportunity of market expansion. Besides using the solution as a waste management method, the customer prospected to use the solution as a marketing tool to promote good quality food, driven to serve the market of food enthusiasts. As a solid result-driven entrepreneur, the owner of the store even planned a coupon distribution through ResQ Club food bags to measure the success of using the solution. Therefore, it is an eye-opening discovery in this research to acknowledge the existence of a functional value of circular economy solutions for organizational strategy. Moreover, in monetary terms, it was valued that the disposal costs are saved, and the cost of surplus food is recovered partially.

On the other hand, the partnering restaurant of ResQ Club is a business that serves a healthy and fresh food line to be sold within the day of preparation and holds a market with unpredictable demand in nature. Therefore, unlike in the grocery business, forecasting the demand and producing accordingly is more challenging for the customer in the foodservice industry. Hence, the customer considered the solution as a rescuing method for yet good quality food for consumption, from being disposed of daily. The concern was exposed as value towards being environmentally friendly and socially responsible by becoming a sustainable business. However, in the business-oriented mindset, the use of ResQ Club solution was a marketing tool to attract new domains of the market, subsequently to expand the current market. Hence, similarly to the grocery store case, the customer valued the solution as a support to the business function as

well. Moreover, the monetary value from surplus sales was acknowledged more positively than in the grocery industry, as the solution solely replaces the disposal of food at the end of the day. However, in service perspective, both the grocery store and the restaurant were pleased with the easy functionalities of ResQ Club solution resulting in the least time and effort compromises on handling surplus food, due to the importance that needs to be given to more sophisticated daily operations in the businesses.

Finally, a third customer case under donor/seller of used material/products/surplus role was subjected to participant-observation of this research. Accordingly, the researcher could spot another value of the surplus sales solution as a channel for general sales. The customer priced the 100% good quality food with a low discount, for increasing daily sales. Therefore, the value of the circular economy solution as a sales tool could be considered another functional value in the business market.

4.1.2 Buyer of Secondhand/ Reconditioned/ Surplus

In circular economy businesses, under surplus selling platforms and renovate and resell business models, there is a buyer of the surplus, or renovated/secondhand goods. The buyers of such solutions are often consumers, but with the possibility of small businesses acquiring renovated/secondhand goods. The researcher was able to interview four consumers of surplus; three from ResQ Club case and One from Netlet case.

First, the ResQ club consumers were young students who enjoyed attractive discounts on the food they could buy from grocery stores and restaurants using the ResQ club mobile application. The quantity and the variety of daily surplus in grocery stores and restaurants are often unpredictable. Hence, the surplus portions prepared for surplus consumers comprise of anything left at the end of the day, making the portion's content and quantity ambiguous for consumers on the mobile application. The consumers expressed excitement about finding out surprising food and goods in the rescued bags bought for a fair price. Therefore, this ambiguity of products available through ResQ Club solution introduces a surprise dimension to customer value in circular economy solutions and adds high credibility to this research's findings. Although the products are not up to 100% good quality, the economic value the grocery bags and meals offer concerning the quantity, variety, and surprise were positively justifiable by the consumers. Especially, the students claim to value the opportunity to buy groceries and consume more restaurant meals for a price that matches the student lifestyle.

Moreover, the trend of contributing to circularity in the grocery and foodservice industries leads to a high rate of growth in the partners available in the ResQ Club solution. Hence, the growth of options available in the solution has opened an opportunity for the

consumers to test restaurants through the surplus consumption available at much cheaper prices. This functional value of the solution also verifies the strategic value the partners of ResQ Club see to expand current markets. In the selective consumers' perspective, the solution was also valued for opening more affordable options for vegetarians and vegans as well as healthy food options that reduce junk food consumption. Thereby, the surplus consumers value the circular economy solution for supporting an easier and healthier lifestyle at a fair price.

Second, the consumer of Netlet who buys construction surplus from the platform also enjoyed the cheap pricing that was at least 1/5 of normal market value. The bricks the consumer bought were compromised to a type that might not fit the purpose entirely, but the consumer made the necessary justifications in the construction to fit the need. Hence, in circular economy consumer market, economic benefits hold high importance. Moreover, the personal dimension of value plays a similar role when making such compromises at a purchase decision. For example, a chance provided by the solution to reduce surplus disposed to the environment was highly valued by all surplus consumers. Hence, the consumer market for surplus solutions also consists of environmentalists and enthusiasts of saving earth who take pride in being part of saving waste and even easily get disappointed in case the business market seeks profitability from such solutions. Besides, in the usability perspective of the solutions, the consumers also valued the tools provided such as online and mobile application platforms that are easily adaptable to the technological habits of the consumers.

In conclusion, table 08 categorizes the discovered customer values to different value dimensions for the role of buyer of Secondhand/ Reconditioned/ Surplus. As implied in the table, it is also important to notice the disvalues of the solution especially existing in the consumer market. For example, the consumers acknowledged the possibility of the bags and portions available in the solution not meeting the quality requirements. Moreover, the consumers disvalued some partners using the solution as a sales tool for normal sales. The activity was viewed as a misuse of the purpose of the solution, i.e. rescuing food from going to waste. In the esteem dimension, the consumers also endorsed the existence of a pessimistic attitude in the communities about consuming surplus. For instance, the friend circles with counter opinions about consumption of leftover food may affect one's esteem as a food rescuer negatively.

Table 08. Categorization of customer values to dimensions in customer role: Buyer of Secondhand/ Reconditioned/ Surplus.

Functional Values	Economic Values	Esteem Values	Emotional values
Fast growth	Attractive discounts on consumer surplus	Pride of being part of saving waste	Excitement the unknown content brings
Easy adaption of the solution to a consumer habit		Negative community effect about surplus usage	Inconvenience of not knowing the content
Broadening options for vegetarians			Availability of unexpected restaurants in the solution
Matching student lifestyle			High product variety and quantity
Reduction of junk food consumption			Reduce waste released to the environment
Opportunity to test new restaurants			Occasional misuse of CE value of the solution
Occasional disregard for quality requirements			
More opportunity consume restaurant food			

4.1.3 Waste Management Service Integrator

A waste management process is often needed in a business unit that runs complex operations or does mass production. Thus, such a business might seek help from an external party to manage the waste of material in use. Especially, in the foodservice industry, a service could be acquired to help the operations run leaner to reduce the cause of waste. Similarly, on a manufacturing floor, the material used could be handled more efficiently and effectively with the help of an external service which contributes to the circularity of the material by reducing, reusing or even recycling. For example, the customer the researcher interviewed under the role of waste management service integrator outsourced the case Fluid intelligence Oy for monitoring and analyzing the oil used on customer's heavy machines. The oil used on heavy machines is a critical material that requires good care on daily basis, else, a periodic oil change is recommended by the manufacturer of heavy machines, which might cause wasting good quality oil that could still work longer. Thus, the customer values the solution primarily for reducing the quantity of oil in use, by extending the material's lifecycle, or in other words, the oil performance is enhanced.

Fluid Intelligence Oy provides a service to monitor, analyze and alert the customers on oil statuses and communicate possible solutions to problems. The customer is a producer of gases for industrial use, hence their 24/7 operational compressor machines among many others. The customer is satisfied with the care the oil is given by Fluid Intelligence, as it relieves the customer from the anticipation about the oil's health. The less frequent oil is changed, more the efforts, resources and costs are saved on oil maintenance, marking the economic value dimention of the solution. Besides, the solution's price is considered economic for the heavy machinery industry, compared with usual investments.

Surprisingly to the customer, the monitoring service provided by the solution reveals important information not only about the oil in use, but also the compressors that the oil is circulating through. Particularly, it was informed to the customer about the metal particles of the machines containing in the oil. The information was vital to the customer to realize the machine depreciation status, to plan the maintenance better. Therefore. the customer holds a newfound value of the solution in supporting to perform better predictive maintenance of the machines, subsequently, to run operations more reliably. However, the customer also acknowledged the existence of esteem value about the involvement with a circular economy solution such as Fluid Intelligence. The customer considered the collaboration to be prestigious to the business in terms of gaining a competitive advantage as a sustainable business. For instance, the customer actively participates in Fluid Intelligence's marketing material and new solution pilot programs, which in turn may benefit the customer to become an actively sustainable business, hence, a leader in the market. In conclusion, table 09 categorizes the discovered customer values to different value dimensions for the role of waste management service integrator.

Table 09. Categorization of customer values to dimensions in customer role: Waste management service integrator.

Functional Values	**Economic Values**	**Esteem Values**
Enhanced performance	Cheap solutions for production industry	Involvement with sustainable businesses and solutions
Valuable information for predictive maintenance and operations	Maintenance cost (through reduced labor and material) savings	
Reduced maintenance frequency		

4.1.4 Chooser of Alternative Sustainable Solutions

In circular economy business, alternative solutions contribute in response to resource scarcity by substituting the resources and material with more sustainable solutions such as renewable and biodegradable resources and material, for instance. Such choices in production and other operations naturally add a competitive advantage to the firms in the business market. On one hand, the producers or providers of renewable electricity, biofuels, biodegradable composites or plant-based food can be considered businesses that contribute to circularity in circular economy. On the other hand, the logistics firms that substitute energy requirements with renewable electricity and biofuels or the automobile and healthcare firms that choose biodegradable composites as their components or the grocery traders who add plant-based food products in their shelves are the customers under this section's discussion. At a glance, the choice to substitute resources and material with more sustainable in the business market seems to base on the singular customer value of gaining competitive advantage, but inquiring the customer's perspective was new knowledge as expected.

The researcher interviewed a customer of two sustainable product producers, Verso Food Oy, and Gold and Green®, which introduces themselves as innovative start-up firms in Finland. The products mean to satisfy vegetarian and vegan consumer markets and even respond to the market, which is converting from livestock agricultural product choices to plant-based. Hence, Verso Food Oy and Gold and Green® perfectly fit as producers of alternative sustainable solutions. Among the customer industries such as grocery trade, foodservice, and consumer grocery, the researcher picked grocery trade that chose to give shelf space for these innovative products. The customer is a leader in sustainable grocery trade and a buyer of both Verso Food Oy and Gold and Green® products, to sell in their grocery store chain. Summarily, table 10 categorizes the discovered customer values to different value dimensions for the role of the chooser of alternative sustainable solutions.

Table 10. Categorization of customer values to dimensions in customer role: Chooser of alternative sustainable solutions.

Functional Values	**Esteem Values**
Expansion of product variety Product innovation Opportunity to respond to trending customer demands	Supporting job creation and economic growth in the society

The customer is a corporation with well-defined strategic goals and scope and determined in taking action accordingly. Therefore, strategy plays the biggest role in the corporation. Accordingly, one of the competitive strategies that the customer acts upon is, possessing a high variety of products on the shelves of the grocery store chain. Hence, from the customer's perspective, the alternative sustainable solutions from Verso Food Oy and Gold and Green® are valued in terms of introducing new products to expand customer's product variety. Moreover, responding to trending customer demands is another scope in the customer's strategy that the suppliers offer an appealing value proposition. As a mediator from producers to the consumer market, the customer also values the suppliers' innovativeness in product design and branding as a capability the customer can leverage to reassure competitive advantage in the grocery trade market. In return, the customer offers to support the business sustainability of such start-up firms and contribute to own strategic action in supporting job creation and economic growth of the society. Interestingly, the findings conclude that the customer value in choosing alternative sustainable solutions lies within the strategic choices of the organizations.

4.2 Customer Value in Business and Consumer Markets

The value perspective of an individual certainly differs from the perspective of a business entity. An individual's values depend on personal experience, needs, and expectations as well as the societal factors the person is influenced by, while a business entity's values depend on economic sustainability resulting in strategic goals that are created for the competitive environment of a particular industry. Therefore, in this section, the value perspectives will be discussed for both business and consumer markets in terms of value dimensions. Accordingly, the researcher identified the existence of four customer value dimensions in circular economy markets:

1. Functional value dimension
2. Economic value dimension
3. Esteem value dimension
4. Emotional value dimension

First, the functional value dimension consists of customer values in business functional perspective and consumer needs perspective. Second, the economic value dimension addresses the direct monetary values the customers expect and experience circular economy solutions. Third, the esteem value dimension categorizes the customer value aspects that provide prestige to businesses as well as to individuals, by circular economy

solutions. Finally, the emotional values relate to personal values that individuals convey about the solutions they acquire.

The values perspectives of a customer can be recognized for the phases of purchase decision, using the solutions as well as future expectations with the solution. These value dimensions and value details are illustrated in the following subsections that compare and contrast the business and consumer markets. Thus, the first section discusses the customer value in the business market while the second section in the consumer market.

4.2.1 Customer Value in Circular Economy Business market

The dataset for circular economy business market consists of three customer roles; Donors/sellers of surplus, waste management service integrator and chooser of alternative sustainable solutions. Hence, all value details of the three customer categories construct customer values for circular economy business market. Figure 10 demonstrates how customer value is accounted for in different value dimensions. The value details with the prefix (-) indicate the disvalues in the dimensions the details are categorized. As illustrated in the figure, the existence of all four value dimensions including emotional value is a controversial finding for customer value in the business market as business markets are majorly driven by economic sustainability. However, it was understood by the researcher that individuals who run business operations might freely make fair judgments also based on personal opinions. Consequently, emotional values might include in making business decisions, among other dimensions that foster business function. Accordingly, the four dimensions of customer value in the circular economy business market, in the order of implied importance;

1. Functional value dimension
2. Economic value dimension
3. Esteem value dimension
4. Emotional value dimension

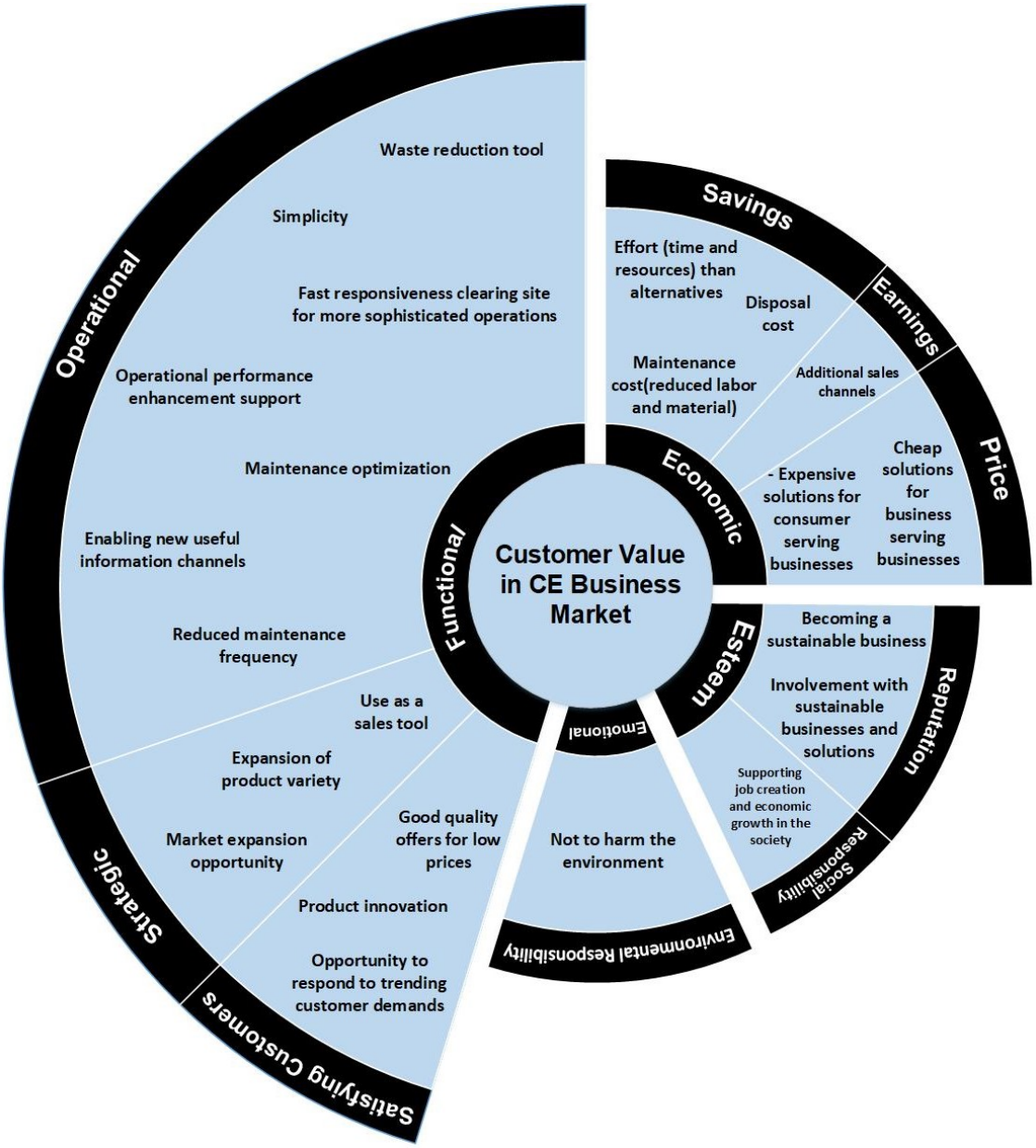


Figure 10. Customer value dimensions in circular economy business market. Prefix (-) indicates the disvalue details.

First, the functional value dimension of circular economy business market plays the most important role in customer perceived value, due to the various business functions in which circular economy solutions support. Accordingly, the value dimensions related to business functions that circular economy solutions support are:

1. Operational functional values
2. Strategic functional values
3. Functional values for satisfying customers

Firstly, operational functional values were addressed by surplus selling partners and waste management service integrators. On one hand, the customers valued the surplus selling solution as a waste management tool, a more convenient way of clearing sites from surplus, and valued the solution's simplicity to which the operations can easily adapt. On the other hand, the waste management service integrator valued the solution as a performance enhancer of the material, an aid to optimizing machine maintenance, an enabler of useful information channels about machine health, and material maintenance minimizer. Secondly, strategic functional values were remarked by surplus selling partners and the chooser of alternative sustainable solutions. The market expansion opportunity by surplus sales was strongly valued by the surplus selling partners, to be taken as a strategic choice, while through participant-observation, the researcher also discovered the solution being valued as a sales tool that accelerates daily sales. Additionally, the chooser of alternative solutions highly valued the opportunity to act on a strategic goal to expand product variety on their shelves. Finally, customer values in satisfying customers function were also raised by the same customers. Satisfying customers through marketing, branding and product innovation is another important business function in which any organization could be active. Accordingly, one of the surplus selling customers valued the solution as an opportunity to satisfy the focus market's quality requirements by selling good quality surplus, subsequently maintain store reputation for high quality. Moreover, the chooser of alternative sustainable solutions valued the product innovation capability of the suppliers in satisfying new markets as well as the opportunity such start-ups provide in responding to trending consumer demands.

Second, the economic customer value dimension consists of three types of economic values such as savings, earnings, and pricing of the solutions. The savings were brought up by the surplus selling partners and the waste management service integrator who valued the effort savings for handling the disposal of surplus, including the disposal costs. The efforts of disposal are accounted for in terms of resources and time spent on the activity. Additionally, in waste management service integrator's perspective, the savings are achieved in reduced maintenance of the material as well as labor costs, which were valued within the economic dimension as well. By nature, the savings as kind can be measured in terms of currency. Opening new channels of earnings is another important type of economic value circular economic solutions bring to customers due to surplus sales, secondhand sales as well as other sharing economy business models. Although the earning might not be as appealing as the values in the functional dimension, the customers appreciated some cash inflow than nothing. Furthermore, the pricing of

circular economy solutions is very attractive to businesses with high capital investments, hence, add special value at the purchase decision of the solution. Contrarily, the solutions may be considered expensive for the customers who serve consumer markets, as the profit margins are smaller or for example, in surplus sales, negative. Therefore, the solutions could be too expensive for certain businesses with such constraints, adding a disvalue to the economic dimension, as perceived by customers.

Third, the esteem dimension of customer value in circular economy business market highlighted two types of esteem value to businesses as Reputation and Social responsibility. The value dimension interprets to a meaning of a value arising from the prestige that an individual or a business would like to devise, for personal reputation or in the business case, gaining competitive advantage. Hence, the customer firms of circular economy businesses valued the reputation added by becoming a sustainable business through circular economy operations or being involved with a circular economy business by acquiring services. Moreover, the chooser of alternative sustainable solutions has a social responsibility for creating jobs and supporting the economic growth of society as part of the corporate strategy. Therefore, the customer treats the vision as an important value when collaborating with circular economy suppliers as well.

At last, the emotional dimension of customer value in circular economy business market was found to be present due to the possibility of personal values being involved in decision making for the businesses. The emotions arising from environmental responsibility should be acceptable especially in the context of circular economy due to the resource scarcity and saving earth concepts being involved in the idea. The value for not harming the environment strongly voiced by the donors of surplus, especially in the construction industry, due to the significant amounts of surplus being wasted and disposed to the environment. However, when making a business decision, using a solution and deciding to collaborate with a partner, various values in different value dimensions are taken into account together and justified to achieve economic sustainability. Therefore, it is noteworthy that constructing the resonating value propositions for the customers should be easier in circular economy business market due to the diverse range of customer value present in the context.

4.2.2 Customer Value in Circular Economy Consumer Market

The research on circular economy consumer market was limited to the buyers of surplus material and products. Thus, the consumers represented the usage of ResQ Club and Netlet Oy Ab solutions. Figure 11 illustrates all the consumer value details as explored by the research. The consumers consider the value details in the figure at choosing and

using circular economy solutions. The value details with the prefix (-) indicate the disvalues occur in the dimensions that the details are categorized.

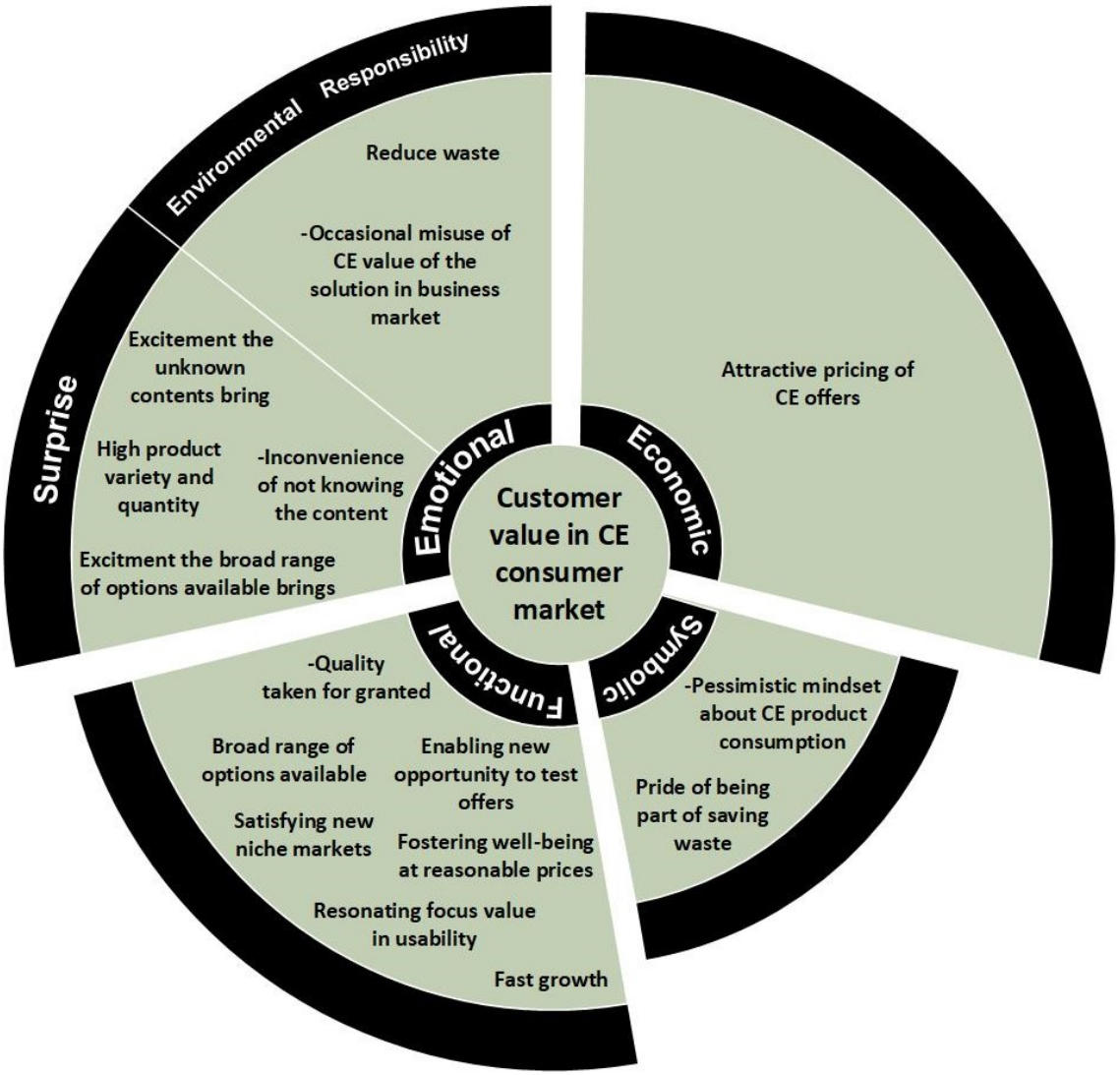


Figure 11. Customer value dimensions in circular economy consumer market. Prefix (-) indicates the disvalue details.

In the context of the consumer market, the customer value dimensions are expressed in alternative labels. For example, in terms of the consumer market, the esteem value dimension is more suitable as symbolic value dimension, in reference to personnel. Accordingly, the four dimensions of customer value in circular economy consumer market, in the order of implied importance;

1. Economic value dimension
2. Emotional value dimension
3. Functional value dimension
4. Symbolic value dimension

First, the purpose of circularity has endorsed the businesses to make the circular economic offers such as surplus, secondhand, and reconditioned products to be back in consumer use by attracting the market with the lowest pricing possible. Hence, low pricing is a fundamental characteristic of the offers in the circular economy consumer market. Through this research, the consumers acknowledged great customer value towards the low priced surplus opening opportunity to afford a wide range of product categories using circular economy offers. Thus, in the consumer market of circular economy, the economic value dimension partakes high importance compared with other value dimensions. For instance, a partner in the business market verified:

"I think 90 percent of those that buy ResQ bags buy them because they're cheap."

Second, in the similar significance of economic value, emotional value is another cause of the popularity of circular economy solutions in the consumer market. As shown in the figure, the emotional value dimension consists of two types of emotional elements as surprise and environmental responsibility. Firstly, the emotion of surprise forms a value, which motivates the consumers to keep using the solution. For example, the partners of ResQ Club solution offer bags and portions of food and other grocery products with imprecise details to the consumer market, leading to surprising the consumers at the pickup of the products. Hence, the consumers showed great interest to continue to use the ResQ Club solution regularly. Likewise, the high quantity and variety in portions and grocery bags, as well as the wide range of partners available in the solution, are valued similarly by ResQ Club consumers for stimulating surprise. Moreover, the consumer of Netlet Oy Ab solution expressed a surprise and pleased value towards the solution due to getting cement free of charge when picking the ordered bricks for the personal greenhouse being constructed. Therefore, the concept of circularity of material seems to generate a great deal of emotions in consumers, not only in surprise aspect but also in responsibility towards the environment. The consumers recognized an emotional value to reduce waste for the benefit of the environment and claimed a responsibility to act on protecting the environment using circular economic solutions as kind. However, the existence of disvalues in the emotional value dimension should also be mentioned in both surprise and environmental responsibility dimensions. The consumers with choosy requirements disvalued the ambiguity of the offers' descriptions in RsQ Club solution due to the possibility of finding contents of dislike. For instance, the vegetarian consumers showed a disturbed feeling, rather than a positive value about surprising content. In the environmental responsibility dimension of emotional value, the consumers expressed a disappointment, forming a disvalue towards the offers that ResQ Club solution is used as a sales tool for normal sales instead of surplus.

Third, the functional values of the circular economy solutions refer to the features of the solutions valued by the consumers for their function. The circular economy solutions are currently in the phase of fast growth, resulting in a customer value for increasing product variety available in the consumer market. For example, although in small quantities, surplus becomes available for consumers from many partners of many own serving markets. This broad variety of products at cheap pricing and consumer level quantities serve the consumers satisfactorily despite the small compromises on quality and fitting the purpose. Hence, the fast growth, high variety are highly valued by the consumers of circular economy. Additionally, low pricing and variety tend to harbor certain lifestyles, such as students with low incomes and well-being with healthier food choices at cheaper pricing. Thus, the solutions carry customer value for satisfying niche markets of students and choosy consumers for healthy food, vegetarians, etc. Consequently, the opportunity to substitute junk food consumption with healthier choices for the same range of prices is another important feature that the consumers valued in ResQ Club solution. However, in spite of suiting low expense lifestyles, the surplus solution is also valued for the opportunity to test unfamiliar restaurants before spending on full-price meals with services. The value exists due to the new opportunity provided by the ResQ Club solution in lowering the risks of high expenditure. The partners of the solution have recognized this opportunity as a strategic functional value in the business perspective; hence, the value plays a significant role in the very existence of the solution. In contrarily, certain partners taking the quality requirements for granted in ResQ Club solution marks the presence of disvalue in the functional dimension of circular economy consumer market. However, in the usability aspect of the solutions, the consumers valued the up to date technological usage such as mobile applications and online platforms, making the solutions easy to adapt.

At last, the symbolic value dimension represents the values the consumers occupy in being an example to the community in which they live. Accordingly, the consumers took pride in reducing waste, hence value being consumers of circular economy solutions. On the account of esteem values, the consumers of circular economy solutions are proud of being part of saving waste. In different circumstances, the consumption of circular economy solutions such as surplus and secondhand products are disvalued with a presumption of degraded quality about the offers.

4.3 Understanding Customer Value in Circular Economy Business Context

Circular economy businesses create new flows of material, products, and information within value networks, to make better use of the material in use, corresponding to resource scarcity. Additionally, the business perspective of circular economy also promises new profit streams to their customers. Therefore, the expectations of this research were weighing to find customers' agreement in economic values of circular economy solutions. However, the findings of the research claim that the value propositions provided by suppliers in the economic dimension hardly resonate with the value perspectives of the customers in the circular economy business market. Therefore, the purpose of this subchapter is to understand the circular economy market's value perspectives better to make more sense about the findings.

For example, solutions that provide platforms for selling surplus, slightly benefit their partnering customers in monetary terms, as surplus is priced below profit margins and surplus quantities are already low due to the operations of the business units are well managed to maintain the waste to a minimum as possible. Surplus is always considered a cost. Hence, customer firms already carefully plan and execute their business operations according to the predicted demands or operational needs, leaving less material and products to waste as possible. A partnering customer of ResQ Club case expressed the operational efficiency of the customer business:

"Our main target, of course, is to reduce the waste to zero so that we order things as much as we sell. If we fail on that, then we need to take other steps. The discount provided to the consumers through the platform is much higher than the profit margin but the food goes to better usage than waste. Money is not the main idea for us regarding ResQ solution. Some money comes in, reduces the cost of waste, but most importantly it goes to usage."

Likewise, waste management service tools are another circular economic business model that is not solely highlighted by customer firms in terms of economic value, but together with many values in the operational function. However, the circular economy businesses that base on surplus, secondhand products or other sharing economy business models enable circularity of material and products. Consequently, while the circular economy based businesses generate their main profit stream from surplus/secondhand/ reconditioned products, the customers who are partnering with the circular economy business need to be provided with the resonating value proposition,

with the use of the appealing combination based on the functional, economic, esteem or even the emotional value dimensions.

Thus, the researcher developed an understanding of customer value in circular economy business markets. The business market constantly seeks the right values in the circular economy solutions acquired, to support their strategic action scope and goals. Hence, on one hand, circular economy solutions are interpreted as enablers of circular economy practices that help improve the sustainability of businesses. On the other hand, since the solutions barely provide values in the economic dimension, customers expect the solutions to support achieving their main business goals in possible additional ways. For example, in ResQ Club case, customers seek opportunities for market expansion through appropriate quality surplus sales as a promotional channel to the main business. The same partnering customer of ResQ Club expressed the expectation:

"We are distributing discount coupons with ResQ bags, hoping they will come back, also do normal shopping with us."

As the customer implies, operational precision is important in daily tasks in the business market. Hence, surplus is considered as an operational error and the percentage of surplus value by turnover is proportional to the operational error. Therefore, it is reasonable for businesses to rather improve the operational error by using better demand forecasts and gaining more control over the demand using marketing strategies. For example, the implementation of coupon distribution with ResQ Club bags intends to promote products and measure customer returns for normal shopping. Therefore, the customer invented a better use of the solution upon own business values. Nonetheless, customers also value the competitive advantage that circular economy solutions provide. For example, while the waste management services help customers to improve the performance of operations, the customers also value the prestige of becoming a sustainable business through a partnership with a circular economy business. The customer of Fluid intelligence Oy acknowledged:

"Collaboration with Fluid Intelligence brings a good image to us at a societal level, because sustainability in the environmental aspect is a trending topic nowadays. Our collaboration information is public on Fluid Intelligence's webpage."

In conclusion, the customers value the circular economy solutions as gateways to broaden business opportunities. While economic values are already appealing to customers, providing the value propositions that comply more with customers' strategic actions and goals should be more effective in the business market of circular economy. Therefore, the next subchapter further shares insights about how the customer value

dimensions in circular economy contribute to economic sustainability of customer businesses.

4.4 Relations between the Value Dimensions of Circular Economy Business Market

The findings of this research revealed various value aspects that customers see in circular economy solutions, inclusive of the belonging value dimensions. Additionally, along the journey of the research, the value aspects that emerged also appeared controversial in terms of importance to the customer, when compared with predicted results. Accordingly, the researcher obtained several insights about the relations between these value dimensions for the context of the circular economy business market. Particularly, as described in section 4.3, the customers rarely expect or experience direct monetary benefits through circular economy solutions; instead, strategically make use of the solutions to achieve their own business goals. Therefore, this section intends to share insights on how certain non-economic value dimensions discovered in this research are more likely the indirect economic values possessed by the customers of circular economy business market.

According to the findings, value dimensions in the circular economy business market are functional values, economic values, esteem values, and emotional values. Evidently, the non- economic values among these are functional, esteem, and emotional values. The researcher identified a couple of non- economic value dimensions to hold indirect economic values; functional values and esteem values, which are illustrated in Figure 12. Additionally, the figure elaborates on the value dimension recognition in circular economy business market, as discovered by the researcher.

As shown in the figure, the customer values in circular economy business market can be distinguished as economic and non-economic value dimensions. However, during interviews and data analysis, the researcher realized the influences that certain non-economic values have on the customers' businesses. Accordingly, the influential dimensions to customer businesses were identified as functional values and esteem values. As the existence of businesses bet on economic sustainability, the researcher drew the relations that the functional and esteem values have with economic values, by recognizing the indirect economic values in those non-economic value dimensions.

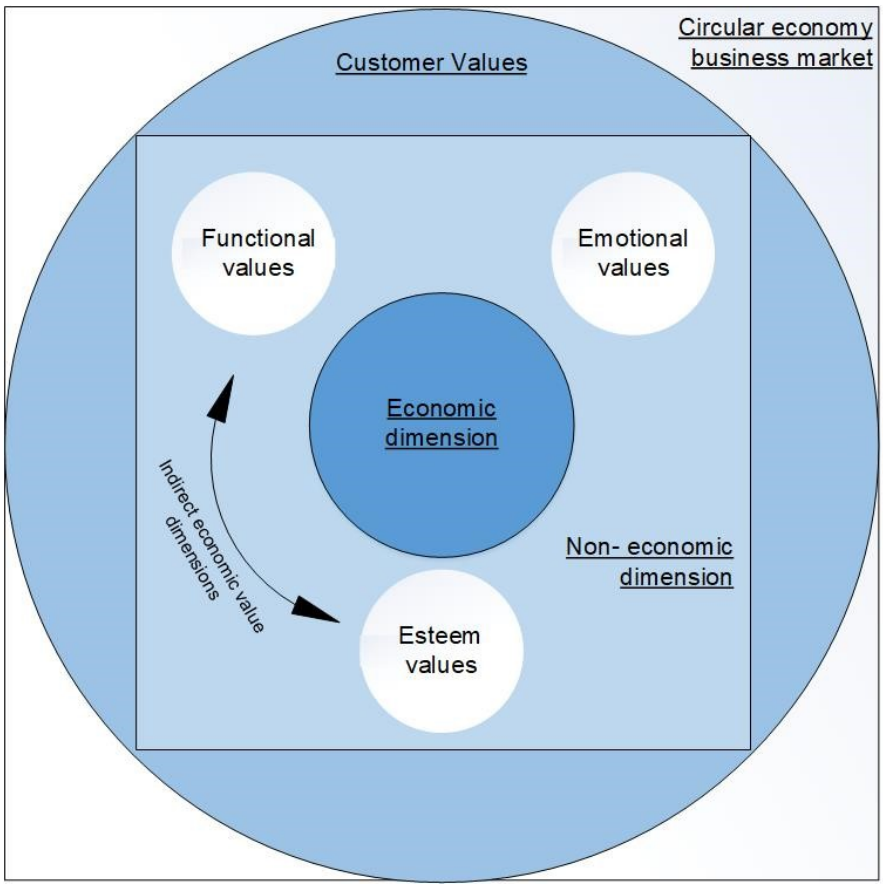


Figure 12. Value dimensions in circular economy business market.

This study regarded value as the benefits that circular economy solutions bring to the customers, as perceived and measured by the customers. Hence, the customer perceived value is discussed in terms of benefits, opportunities, and costs. Correspondingly, the first value dimension that has indirect economic values in discussion is the functional value dimension. The functional area to which circular economy solutions cooperate is the business functions of the customers. Hence, as perceived by customers, the researcher identified three business functions that benefit the circular economy business market and subsequently, further categorized the functional values as:

1. Operational functional values
2. Strategic functional values
3. Functional values for satisfying customers

Firstly, operational functional values refer to the benefits of circular economy solutions on improving operational outcomes, enhancing operational capacity and performance, saving effort and time in operations and maintenance, and effective collaboration in operations and maintenance (value co-creation in operational level). The improved

operational outcome refers to improvement in the quality of customers' produce and/or increased volume of the produce (Wind, 1981). For instance, the improvements in operational mechanisms and methods followed, may add more attractive features to the produce with the same effort or simplify result in higher efficiency, hence, increased volume. Consequently, such improved features may provide customers a competitive advantage in the market, allowing the customers to add price premiums on their produce, as well as opening opportunities to serve new markets. However, either way, the customer may experience increased revenues due to increased sales. Therefore, the solutions that provide aid in improvement in operations as sort, can be naturally considered valuable in an indirect economic manner. Similarly, the solutions that enhance operational capacity and performance with the aid of an external solution can be regarded as an opportunity to satisfy market demands better due to increased productivity, resulting in increased sales and revenues. Alternatively, the opportunity to serve new markets with the excess produce can be another benefit, hence a value to the customers. Additionally, time and effort saving may also provoke significant monetary savings, which is interpreted as another indirect economic value in such solutions that provide efficiency in operations. For instance, the customer of Fluid Intelligence Oy valued the oil performance monitoring solution as an effective aid in performing preventive maintenance on the customer's heavy machinery in necessary times, instead of blindly scheduled times. Thus, the solution is expected to reduce the frequency of maintenance, subsequently reducing the resources and time spent on maintenance. Therefore, such savings sequentially may reduce and save the monetary investments on maintenance as well as in employees' perspective, may provide more time for more sophisticated tasks in operations. Finally, effective collaboration in operations and maintenance helps the customer to achieve uninterrupted and timely production, hindering the possibility for breakdowns, hence avoid monetary losses that may cause due to delays in meeting the market demands. The customer of Fluid Intelligence Oy shared this insight:

"The maintenance side of this solution is the best one. It is worth the money because then we can do better predictive maintenance, to prevent breakdowns that stop us from making money during downtime."

Therefore, the aid provided by external solutions in avoiding monetary losses as kind is taken by the customer firms as another indirect economic value that improves the reliability of operations.

Secondly, the strategic functional values refer to the benefits that customers experience, due to the effective features and support that circular economy solutions provide, to

comply with the customers' strategic goals. Effective support to sales and marketing strategies are a couple of example functions that the customers particularly saw as valuable in the research findings for circular economy solutions. For instance, solutions like sales tools benefit customers in more effective and increased sales due to the additional facility the tool provides for sales; stemming increased revenues. Moreover, the opportunities to expand the markets through novel circular economic solutions create new interests and higher demands to fulfill, followed by increased revenues. Therefore, the customers may regard such solutions valuable in an indirect economic manner, due to the influence in increased sales and expansion of customers' markets. Especially, for customers of whom a strategic choice is to obtain the highest product variety, circular economy suppliers who add innovative products to customer shelves are extremely valued. The strategic goal in such choice is to gain and maintain competitive advantage, high customer service, resulting in opportunities for applying price premiums as a leader in the market. Hence, it is the customers' perspective to see value in terms of aid in economic sustainability that is provided by the circular economy suppliers who add product variety to customers' sales. Moreover, in the eyes of customers of Verso Food Oy and Gold and Green®, the substitute sustainable consumer products they supplied even induce market changes and new markets of consumers, where the customer can take part in as a retailer, with a plan to benefit from the trend. Correspondently, the customer of Verso Food Oy and Gold and Green® added:

"We also have seen the trend that the customers who used to buy meat mostly start to be more fleksaaja, that they buy substitute vegetarian food as well. So, we do believe that in the future, this vegetarian segment will grow and benefit us."

The benefits of certain market changes and expansion succeed in better revenues; hence, a reason to recognize an indirect monetary value in such solutions. In other words, the suppliers with capabilities of product innovation may be valued in strategic function, due to the opportunity to leverage from such supplier capabilities to win markets through competitive advantage that permits price premiums and economic sustainability, resulting in increased revenues. For instance, the same customer that valued high product variety also appreciated the suppliers' capabilities in innovation that actively responds to market requirements, not only in product design but also in packaging and other branding improvements. The innovativeness of suppliers in satisfying market requirements open discussion to the third functional value of circular economy solutions in satisfying customers.

Thirdly, the functional values for satisfying customers refer to opportunities circular economy solutions open to respond to trending customer demands better, which may

result in higher sales and revenues. As discussed above, profiting through the suppliers' innovative capability in responding to trending customer requirements can reflect as an indirect economic value. Another function among findings in this context is the opportunity to sell lower, yet acceptable quality produce for low prices. Correspondingly, the partner of ResQ Club in grocery industry shared:

"Our main strategy of the business is that we offer high-quality food for food lovers and people who respect the food, and when we put up a bag full of bread that is not normal anymore, we need to make sure that it also supports the basic idea of our company and business."

For the businesses that achieve and maintain their competitive advantage through high-quality products and services, compromising the level of quality is seldom a risk taken. Therefore, through circular economy solutions that the quality of produce is compromised, the customers may still like to maintain their reputation unharmed and turn the solution around to an opportunity to promote products and services with the highest compromised quality possible. Consequently, customer loyalty gained by good quality sales in circular economy markets may help expand existing markets, resulting in increased sales and revenues. Thereby, the customers may see indirect economic value in circular economy solutions by making use of the opportunity to promote their products and services, expand markets, and increase sales and revenues.

Finally, Esteem values add prestige to the customer in the face of their customers and external environment and are considered the second indirect economic value dimension in circular economy business market, in this research. The prestige earned by becoming a sustainable business or involving with a sustainable partner also caters competitive advantage of the customers' produce. For example, recognition as a sustainable business through being included as a partner in the suppliers' media may attract the markets better in appreciation of business sustainability. Consequently, the uniqueness created by competitive advantage allows price premiums in customers' markets, resulting in increased revenues. Therefore, the customers may value such credibility earned with partnerships to benefit economically in their markets. Figure 13 illustrates a framework on how the discussed non-economic customer value dimensions imply economic value to customers of circular Economy Business Market.

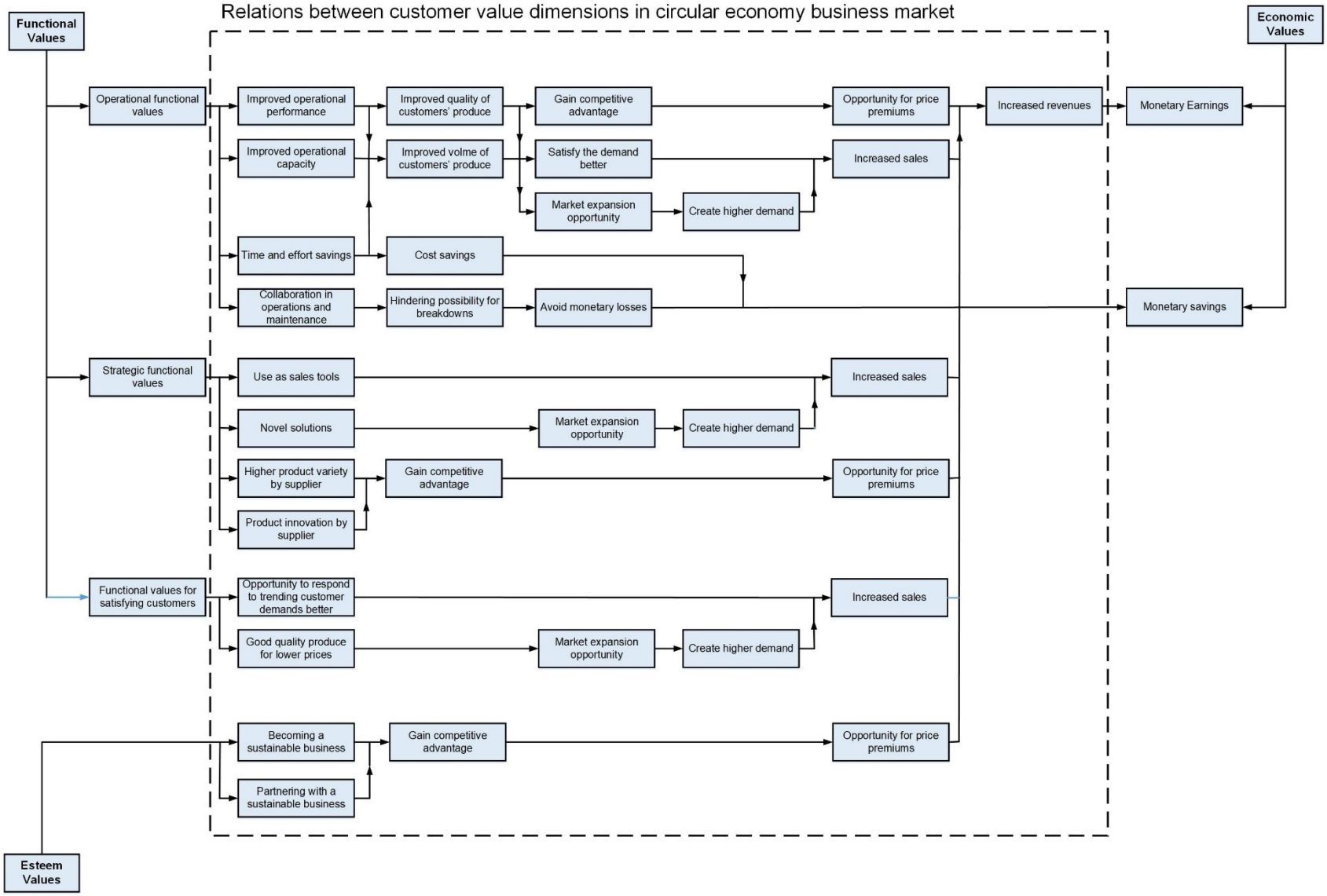


Figure 13. Economic relation model for non-economic customer values in circular economic business market.

As shown in the figure, the influence of functional and esteem value dimensions on the economic value dimension has multiple steps, which makes the non-economic value dimensions customers hold, indirectly economic. At first sight, the customer value in circular economy business market may appear hardly related to economic benefits, but in the customers' perspective, the solutions aid in driving their businesses towards more economic sustainability. However, the framework is based on a deducted understanding from the dataset and the researcher's insights. Therefore, these relations between the value dimensions in the context of circular economy business market is an interesting topic to explore further and verify through future research.

5. DISCUSSION AND CONCLUSION

The thesis narrates an explorative research in the business market of circular economy. The research investigates the value dimensions of customer value from the perspective of customers in different industries, by conducting semi-structured interviews and analyzing data based on a ground theory method. The thesis draws literature on customer value and circular economy businesses and applies the knowledge to grasp values from data and construct the new theory for circular economy business market.

Thus, the objective of this thesis was to investigate and explore customer value and customer value dimensions in circular economy markets. Hence, the study conduct was aimed to answer how customer perceived value varies in different business models, to different markets, how value is interpreted in the business market, and economic value implied in different non-economic value dimensions. The research questions designed within the objective according to the most critical and practical sub-questions, to define, understand and make use of the value dimensions in the industry.

The cases of the study were chosen to respond to different business models of circular economy. The cases included in the study were ResQ Club and Netlet Oy Ab as surplus selling platforms, Fluid Intelligence Oy as a waste management service provider, and Verso Food Oy and Gold and Green® as producers of alternative sustainable solutions. The customers of the cases were interviewed to grasp value perspectives on CE solutions at the phases of acquiring decision, usage, and future expectations. The interviews were conducted on six business market customers and four consumers. Besides the use of qualitative interviews, participant-observation was used to observe value-in-use for the customer of Fluid Intelligence oy case and an additional customer of ResQ Club in the business market.

The data gathered were analyzed using Gioia methodology for seeking qualitative rigor in theory-building. Accordingly, the data were analyzed per customer role and cross-analyzed between customer roles in the cases involving multiple customer roles. The cross-analysis was also used to verify the data between the customers of two markets. Finally, the emerged theories were presented in terms of customer roles, business models as well as markets, in contribution to both research and industrial fields.

The results of the thesis highly suggest the industry to view circular economy solutions in partnering customers' perspectives and offering value propositions accordingly. Moreover, the discovery of emotional value dimension in the business market also

suggests leveraging the value in making propositions as well. In the case of consumer market, a surprise element was found in the emotional dimension. According to the findings, the value a significant driver in the consumer market. However, the thesis concludes with an assessment of newfound value dimensions in terms of economic benefits, to improve the observability of the benefits of circular economy solutions in the business market.

5.1 Responding to Research Questions

The research was mainly conducted to explore customer value in circular economy business market. Due to the wide variety of business models in circular economy business, the research was based on multiple cases that cover as many business model types as possible. However, the research questions the perceived customer value in circular economy markets, hence the research was conducted on customer firms and consumers of multiple cases under the study. The study was extended to consumers due to the high significant collaboration of consumers in circular economy businesses. The data for the study was extracted using a couple of methods such as semi-structured interviewing and participant-observation. The research questions of the research:

RQ1: How does perceived value vary in different circular economy business models?

RQ2: How are circular economy offers valued in business and consumer markets?

RQ3: How is value interpreted in circular economy business market?

RQ4: What economic relations exist in the value dimensions of circular economy business market?

The first research question was, *How does perceived value vary in different circular economy business models?* The conduct of the study was oriented according to answering this question. The circular economy business models were categorized into four groups upon value creation and delivery related characteristics, then the cases were selected to cover each category. However, due to multiple roles of customers involved in each category, the conduct of the study was diverted per customer role type corresponding to business model categories. Therefore, the question was still answered in terms of customer roles since the theme of the research heavily relies on the customer perspective as well. The findings revealed high-value concerns in the functional dimension in customers of the business market while the consumer market significantly occupied values in both economic and emotional dimensions.

The second research question evaluated customer values per market type as *How are circular economy offers valued in business and consumer markets?* The researcher merged all the value details found per market type and generalized the findings to express according to market type. Each market type comprised of four main customer value dimensions with sub-dimensions, which better explained the rationale of the value details in the dimensions. The customers of circular economy business market occupy functional values, economic values, esteem values, and emotional values in terms of dimensions while in the consumer market, the consumers perceive economic values, emotional values, functional values, and symbolic values. One of the key findings under this question is the existence of emotional value in the business market as well.

The third question was, *How is value interpreted in circular economy business market?* and was answered with the customers' explanations of why the research expectations were contrary to the findings. The partners to circular economy businesses expressed how economic values are insignificant compared with functional and esteem values recognized by them. Accordingly, the researcher shared the understanding in section 4.3, to contribute to industrial usage.

Finally, the question *What economic relations exist in the value dimensions of circular economy business market?* is answered using the researcher's insights about the high significance of non-economic values in circular economy business market, by drawing indirect economic relations to each value detail. The answer is inclusive of a suggested framework with multi-step connections between the non-economic and economic value dimensions. Consequently, the answer elaborated using section 4.4 proves that the customer values in business markets remain in achieving and maintaining economic sustainability.

The objective of the research was achieved by answering the questions using subchapters in section 4. However, as a new and far-reaching concept, other than further validating the findings and measuring the attributes quantitatively, customer value in circular economy should receive more attention by academia and the industry. Moreover, the limitations of this study open the opportunity to explore further within the same scope, and is discussed in section 5.3.

5.2 Theoretical Implications

This research focused on customer value in circular economy business market. The multiple case research was extended the consumer market for the cases of consumers involved in the business. The research explicitly studied the customer value dimensions

and value assessment in the business market, to use as base knowledge and presented value dimensions that exist in the context of circular economy business market, as well as the consumer market. Hence, evaluating value details to belong in known value dimensions as well as assessment of unfamiliar value details into new dimensions were performed. For instance, a surprise element was detected in consumer value details during qualitative data analysis and a sub emotional dimension was suggested as a finding in the consumer market.

For conducting purpose of the study, the business models of circular economy business were investigated, due to the presumption of value differentiation across business model types. As summarized by Planing (2015), the numerous viewpoints by numerous authors resulted in non-concluded types of business models. Hence, the researcher determined four categories of business models, based on value creation and delivery elements. Furthermore, the customer's perspective on value consumption was still left unexplored, except in the evaluations done by Antikainen et al. (2018) and Ellen MacArthur Foundation for value in the consumer market. Thereby, the study was explorative with the presentation type of listed information. Hence, the researcher did not use any existing framework to base the presentation of the results. However, depending on the importance of value dimensions that was implied by customers during study conduct, a novel visualization of the results was designed and presented for reporting purpose.

Interestingly, the results appeared to have controversial elements when comparing with the literature on customer values in business markets in general. The emotional values towards environmental responsibility seemed to play a role at taking initiative to circular economic business models as customers. However, value-in-use make realization of business-oriented dimensions of value in circular economy solutions and reassures economic sustainability of the customer business. Thus, despite the existence of emotional values, the customer values in circular economy comply with the literature on value in the business market in general.

5.3 Managerial implications

The results section of this thesis comprehensively discusses the findings to mainly contribute to research literature. Hence, this chapter explicitly focuses on shedding a light to managerial knowhow. The research contributes to several managerial areas in circular economy business context.

1. Dimensions of customer value from the customer perspective.
2. Exploring the customer's perspective of circular economy solutions.

3. Making more compelling value propositions from circular economy solutions.
4. Linkages from explored value dimensions to economic sustainability.

First, according to the objective of the study, customer value for circular economy was discovered per customer role. However, serving the results per business model makes more useful in managerial context. Therefore, the business models under which the customer value is in discussion are:

1. Surplus selling platforms
2. Waste management services
3. Producing alternative sustainable solutions
4. Renovate and resell

Firstly, the surplus selling platforms attribute customers in both business and consumer markets, as donor/seller of surplus in the business market and consumers of surplus. On one hand, the donors/sellers of surplus the donors/sellers of surplus highly value the functional benefits related to decluttering, monetary savings in clutter handling as well as the chance to become sustainable for gaining competitive advantage. On the other hand, the consumers of surplus greatly valued the economic benefits for the opportunity of consuming a high range of product variety. The solutions are also valued for the opportunity of experimental consumption at a low risk of expenditure. Secondly, the waste management services occupy one type of customer, i.e. the integrator of the service in their operations. While the values dominate in functional dimension by reducing waste and enhancing material performance and lifetime, the support for operational maintenance mark surprising and noteworthy value details in the dimension. The new channels of useful information and continuous collaboration are the elements of support in operational maintenance. Additionally, the customer values the involvement with sustainable solutions to gain a competitive advantage as well. Thirdly, the production and supply of alternative sustainable solutions have choosers of alternative sustainable solutions that value the CE suppliers' innovativeness in responding to customers' market trends and the support on maintaining the sustainability of the business. Moreover, the buyers also value the opportunity to act on social responsibility through circular economic solutions. Finally, as the study could not cover the renovate and resell business model, the researcher would like to speculate the customer value in the business model due to similarity in value creation and delivery to surplus sales and similarity in value capture to the production of alternative sustainable solutions. Accordingly, the donor/seller of used/reconditioned products is assumed to be similar to donors/sellers of surplus while the buyer/chooser of used/reconditioned products, to

choosers of alternative sustainable solutions. Thus, the donors/sellers of used products might value the functional relief of efficient decluttering, monetary benefits in waste handling and the opportunity of operating more sustainably. In addition, the buyers/ choosers of used/reconditioned products might value the CE suppliers' innovativeness in product life cycle improvement and ownership sharing models, in response to customers' market trends. The support to achieve and maintain sustainability and the opportunity to act on social responsibility through the circular economic solutions might be valued by the buyers/ choosers of used/reconditioned products.

Second, the customers' perspective on circular economy solutions was discovered to be distinctive to the assumptions by the circular economy business entities and the endorsers in the industry. The additional profit streams by converting the businesses to circular economy are often considered highly significant and the main driver for conversion is considered to be the legislation that is thought to come from governing institutions. However, while the circular economy businesses capture value mainly from the additional profit streams, the customers who collaborate in closing loops expect and experience value in many other dimensions.

The business market is often driven by competitive strategies, that concern achieving competitive advantage in own domain of activities (Johnson et al., 2015). The strategic business units such as suppliers of consumer goods and services, advance their strategies in differentiation focus to obtain business sustainability in the long term. The differentiation focus of business strategy is described by Johnson et al. (2015) as involved with uniqueness along some dimension that is sufficiently valued by the focused market to allow a price premium. However, defining a strategy statement in terms of activity scope and goals, and understanding and developing the business unit's advantages and capabilities to achieve the goals is naturally considered the core of a business. Therefore, the choices made and the actions taken by a business unit are always expected to collaborate and comply with own business values. This is similarly applicable for the customer firms of circular economy.

Hence, customers of CE business market could be driven by the values of the dimensions that comply with strategic action scope and goals. For instance, the competitive advantage gained by sustainability and achieving main business goals in possible additional ways. in other words, the customers value circular economy solutions as a way to enhance business opportunities.

Third, providing the customers with the value propositions that are more business functional oriented should be more effective in circular economy business market. For

example, the customer of ResQ club in grocery industry suggested the solution to provide more comprehensive reports to measure the effectiveness of the solution to the business by working with the service in surplus business. The customer expressed the idea:

"The only thing that still needs improving is reporting, because of we, for bookkeeping and own management would need more precise information on how many customers, who they were, could we gain something with them in other ways or do something else than just give them food bags. In addition, how much in a way we sold and so forth. It is not that convenient yet."

Therefore, even in circular economy solutions, research on what customer value aligning the solutions accordingly is important. Moreover, instead of waiting for regulations to push businesses towards circular economy, initiating the conversion to CE using partnerships with pure CE businesses would be a good practical approach if the value propositions resonate with customer's business goals. Leveraging emotional values could make appealing value propositions as the study discovered the existence of emotional values towards environmental responsibility, in the phase of deciding to try circular economy solutions.

At last, linkages from explored value dimensions to economic sustainability are necessary as Geroski (2000) mentions that the number of adopters of an innovation increases when the customers can perceive the value of the new technology by understanding its features, functions, and benefits. The benefits that circular economy solutions bring can be perceived and measured by the customers as value (Doyle, 2016). Therefore, for CE businesses to enhance the observability of values in the propositions made to customers, the elaboration of indirect economic values of non-economic dimensions that were discovered will be helpful. Among the customer value dimensions of circular economy business market, the functional values and esteem values hold indirect economic values due to the relations of the corresponding business functions have with marketing business function. For instance, Wind (1981) mentions that better control over operational capacity and resources influences satisfying demands smoother. Inversely, following the operational constraints influences the nature, level, and timing of demand for the benefit of the economic sustainability of the business. The consumer and trade promotion and deals are one example that Wind, 1981 further explains as an influential marketing strategy. Hence, the functional values of circular economy solutions in both operational and strategic business functions can be considered as indirect economic values as customers perceive. Moreover, Wind (1981) advises that values for satisfying customers should be a basic marketing tool, which can

often determine the fate of the firms marketing efforts. Hence, the CE solutions that enhance customer satisfaction should economically benefit the customer firms due to the influences in marketing strategy. In conclusion, the customers value the circular economy solutions that influence the marketing attributes such as competitive advantage, demand satisfaction, and market expansion, as well as influence operational improvements to avoid losses, due to the long-term economic benefits that can be achieved.

5.4 Limitations of the study and future research

The study determined four categories of business models in the circular economy business market, to investigate the customer value and dimensions. However, accessibility constraints limited the study to only surplus selling platforms, waste management services and producing alternative sustainable solutions, leaving renovate and resell model unexplored. Additionally, the sampling of the cases within business model categories was limited to single or two industries in the business market. Therefore, the conclusions of the results are aware of the partiality and the impact of the inadequacy of cases. However, the limitations invite future research to progress beyond these limitations and justify the research findings of this study as well.

The type of this study is exploratory and confronts the customers of the cases under the study. Circular economy business models consist of a high variety of value creation and delivery ways, due to the wide variety of product types and material under the concern of circularity as well as the undefined count of methods of following 3R principles of circularity. Hence, the customer value of resulting solutions open opportunity for the future to explore further on details and dimensions of customer value, to make use in creating better value propositions in CE business market. For example, sharing economy services that could be in use in the business market would be another interesting area of customer value research. Moreover, surplus varies in many more industries such as in various equipment production, waste management tools exist significantly in the foodservice industry, alternative sustainable solutions exist in healthcare and automobile industries, and renovate and resell solutions exist in the form of information technology hardware solutions. Therefore, a vast scope of research is available in customer value of circular economy business.

REFERENCES

Anderson, J.C. and Narus, J. a. (1998), “Understand What Customers Value”, *Harvard Business Review*, Vol. November- No. December, pp. 5–15.

Anderson, J.C. and Narus, J.A. (1999), “Business Market Management: : Understanding, Creating, and Delivering Value”, *Journal of Business and Industrial Marketing*, available at:https://doi.org/10.1108/08858629910272265.

Anderson, J.C., Narus, J.A. and Rossum, W. Van. (2006), “Customer Value Propositions in Business Markets Three Kinds of Value Propositions”, *Harvard Business Review*, pp. 1–8.

Anderson, P.A. (Cornell U. (1983), “Decision Making By Objection and the Cuban Misile Crisis”, *Administrative Science Quarterly*, Vol. 28, pp. 201–222.

Antikainen, M., Lammi, M. and Hakanen, T. (2018), “Consumer service innovation in a circular economy-the customer value perspective”, *Original Paper Journal of Serviceology*, Vol. 3 No. 1, available at: http://www.serviceology.org/journal/JSEO17004.pdf.

Bakker, C., den Hollander, M., Van Hinte, E. and Zljlstra, Y. (2014), "Products that last: Product design for circular business models", *TU Delft Library*.

Bansal, P. and Corley, K. (2011), “The coming of age of qualitative research”, *Academy of Management Journal*, Vol. 54 No. 2, pp. 233–237.

Bitner, M.J., Faranda, W.T., Hubbert, A.R. and Zeithaml, V.A. (1997), “Customer contributions and roles in service delivery”, *International Journal of Service Industry Management*, available at:https://doi.org/10.1108/09564239710185398.

Bocken, N.M.P., de Pauw, I., Bakker, C. and van der Grinten, B. (2016), “Product design and business model strategies for a circular economy”, *Journal of Industrial and Production Engineering*, Taylor & Francis, Vol. 33 No. 5, pp. 308–320.

Bocken, N.M.P., Short, S.W., Rana, P. and Evans, S. (2014), “A literature and practice review to develop sustainable business model archetypes”, *Journal of Cleaner Production*, available at:https://doi.org/10.1016/j.jclepro.2013.11.039.

Bowen, J. (1990), “Development of a taxonomy of services to gain strategic marketing insights”, *Journal of the Academy of Marketing Science*, available at:https://doi.org/10.1007/BF02729761.

Bowman, C. and Ambrosini, V. (2000), “Value Creation Versus Value Capture: Towards a Coherent Definition of Value in Strategy”, *British Journal of Management*, available at:https://doi.org/10.1111/1467-8551.00147.

Bryman, A. (1988), “The Nature of Qualitative Research”, *Quantity and Quality in Social Research*, Taylor & F., Routledge, New York, pp. 45–70.

Burrell, G. and Morgan, G. (1979), “Sociological Paradigms”, *Heinemann*.

Chi, H.K., Yeh, H.R. and Yang, Y.T. (2009), “The impact of brand awareness on consumer purchase intention: The mediating effect of perceived quality and brand loyalty”, *The Journal of International Management Studies*.

Corley, K.G., Gioia, D.A., Graduate, J., School, J.G., Jones-Cor-Ley, J., Trevino, L., Jansen, K., et al. (2004), “Identity Ambiguity and Change in the Wake of a Corporate Spin-Off Change in the Wake of a Corporate Spin-off”, *Source: Administrative Science Quarterly*.

Dabholkar, P.A. (1996), “Consumer evaluations of new technology-based self-service options: An investigation of alternative models of service quality”, *International Journal of Research in Marketing*, Vol. 13 No. 1, pp. 29–51.

Eisenhardt, K.M. (1989), “Building Theories from Case Study Research”, *Academy of Management Review*, Vol. 14 No. 4, pp. 532–550.

Ellen MacArthur. (n.d.). “Keeping Customer Connections_ Why customer relationships don ’ t have to end at the point of sale – Lessons from circular economy”, No.

CE100, available at: https://www.ellenmacarthurfoundation.org/assets/downloads/ce100/CE100_Report_Retail_Customer_Final.pdf.

Ellen MacArthur Foundation. (2013), “Founding Partners of the Ellen MacArthur Foundation 2013 CIRCULAR ECONOMY TOWARDS THE Economic and business rationale for an accelerated transition”, *Journal of Industrial Ecology*.

Geroski, P.A. (2000), “Models of technology diffusion”, *Research Policy*, available at:https://doi.org/10.1016/S0048-7333(99)00092-X.

Gioia, D.A. and Chittipeddi, K. (1991), “Sensemaking and sensegiving in strategic change initiation”, *Strategic Management Journal*, available at:https://doi.org/10.1002/smj.4250120604.

Gioia, D.A., Corley, K.G. and Hamilton, A.L. (2012), “Seeking Qualitative Rigor in Inductive Research: Notes on the Gioia Methodology”, *Organizational Research Methods*, Vol. 16 No. 1, pp. 15–31.

Gioia, D.A. and Pitre, E. (1990), “Multiparadigm perspectives on theory building”, *Academy of Management Review*, Vol. 15 No. 4, pp. 584–602.

Grönroos, C. (2006), “Adopting a service logic for marketing”, *Marketing Theory*, Vol. 6 No. 3, pp. 317–333.

Gummerus, J. (2013), “Value creation processes and value outcomes in marketing theory”, *Marketing Theory*, Vol. 13 No. 1, pp. 19–46.

Heinonen, K., Strandvik, T., Mickelsson, K.J., Edvardsson, B., Sundström, E. and Andersson, P. (2010), “A customer-dominant logic of service”, *Journal of Service Management*, Vol. 21 No. 4, pp. 531–548.

Johnson, G., Whittington, R., Scholes, K., Angwin, D. and Regnér, P. (2015), *Fundamentals of Strategy*, *Management*, Third Edit., Pearson Education Limited.

Keränen, J. and Jalkala, A. (2013), “Towards a framework of customer value assessment in B2B markets: An exploratory study”, *Industrial Marketing Management*, Elsevier Inc., Vol. 42 No. 8, pp. 1307–1317.

Kienzler, M. (2018), *Micro-Foundations of Value-Based Pricing and Selling*, available at:https://doi.org/10.3384/diss.diva-148881.

Kirchherr, J., Reike, D. and Hekkert, M. (2017), “Conceptualizing the circular economy: An analysis of 114 definitions”, *Resources, Conservation and Recycling*, Vol. 127 No. April, pp. 221–232.

Korhonen, J., Honkasalo, A. and Seppälä, J. (2018), “Circular Economy: The Concept and its Limitations”, *Ecological Economics*, Elsevier B.V., Vol. 143, pp. 37–46.

Kotler, P. (2013), *Marketing Management 14e. Pearson Education Limited*, *Pearson*, available at:https://doi.org/10.1080/08911760903022556.

Lapierre, J. (2000), “Customer-perceived value in industrial contexts”, *Journal of Business & Industrial Marketing*, available at:https://doi.org/10.1108/08858620010316831.

Lindgreen, A. and Wynstra, F. (2005), “Value in business markets: What do we know? Where are we going?”, *Industrial Marketing Management*, Vol. 34 No. 7 SPEC. ISS., pp. 732–748.

Lüdeke- Freund, F. (2010), “Towards a Conceptual Framework of Business Models for Sustainability”, *Knowledge Collaboration & Learning for Sustainable Innovation ERSCP-EMSU Conference, Delft, The Netherlands*, available at:https://doi.org/10.13140/RG.2.1.2565.0324.

Mcdougall, G.H. g. and Levesque, T. (2000), “Customer satisfaction with services: putting perceived value into the equation”, *Journal of Services Marketing*, Vol. 14 No. 5, pp. 392–410.

Meyer, C. and Schwager, A. (2007), “Understanding Customer Experience”, *Harvard Business Review*, Vol. 85 No. 2, pp. 116–126.

Miles, L. D. (1961), "Techniques of value analysis and engineering", *New York: McGraw-Hill Book Company.*

Miles M.B. and Huberman A.M. (1994), "Qualitative Data Analysis", *Sage Publications,*

Thousand Oaks, CA.

Murray, A., Skene, K. and Haynes, K. (2017), “The Circular Economy: An Interdisciplinary Exploration of the Concept and Application in a Global Context”, *Journal of Business Ethics*, available at:https://doi.org/10.1007/s10551-015-2693-2.

Narus, J.A. and Anderson, J.C. (1998), “Business Marketing: Understand What Customers Value”, *Harvard Business Review*.

Osterwalder, A. and Pigneur, Y. (2010), "Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers".

Pinfield, L.T. (1986), “A Field Evaluation of Perspectives on Organizational Decision Making”, *Johnson Graduate School of Management, Cornell University*, Vol. 31 No. 3, pp. 365–388.

Planing, P. (2015), “Business Model Innovation in a Circular Economy Reasons for Non-Acceptance of Circular Business Models”, *Journal of Business Model Innovation*, No. April, pp. 1–11.

Prahalad, C.K. (2009), “Co-creating unique value with customers”, *Strategy and Leadership*, Vol. 32 No. 3, pp. 4–9.

Prieto-Sandoval, V., Jaca, C. and Ormazabal, M. (2018), “Towards a consensus on the circular economy”, *Journal of Cleaner Production*, Elsevier Ltd, Vol. 179, pp. 605–615.

Puccinelli, N.M., Goodstein, R.C., Grewal, D., Price, R., Raghubir, P. and Stewart, D. (2009), “Customer Experience Management in Retailing: Understanding the Buying Process”, *Journal of Retailing*, available at:https://doi.org/10.1016/j.jretai.2008.11.003.

Ravald, A. and Grönroos, C. (1996), “The value concept and relationship marketing”, *European Journal of Marketing*, available at:https://doi.org/10.1108/03090569610106626.

Rintamäki, T., Kuusela, H. and Mitronen, L. (2007), “Identifying competitive customer value propositions in retailing”, *Managing Service Quality*, Vol. 17 No. 6, pp. 621–634.

Ritter, T., Gemünden, H.G. and Walter, A. (2001), “Value Creation in Buyer – Seller Relationships”, *Industrial Marketing Management*, Vol. 30 No. 1, pp. 365–377.

Stahel, W.R. (2016), “The circular economy”, *Nature*, available at:https://doi.org/10.1038/531435a.

Strauss, A. and Corbin, J. (1998), *Basics of Qualitative Research Techniques.*, *Sage Publications*.

Vargo, S.L. and Lusch, R.F. (2004), “Evolving to New Dominta Logic for Marketing”, *Journal of Marketing*.

Vargo, S.L. and Lusch, R.F. (2008), “From goods to service(s): Divergences and convergences of logics”, *Industrial Marketing Management*, Vol. 37 No. 3, pp. 254–259.

Wind, Y. (1981), ‘Marketing and the other business functions’, in *Research in marketing (vol 5)*. JAI press Inc, pp. 237-264.

Wang, P.C., Che, F., Fan, S.S. and Gu, C. (2014), “Ownership governance, institutional pressures and circular economy accounting information disclosure: An institutional theory and corporate governance theory perspective”, *Chinese Management Studies*, available at:https://doi.org/10.1108/CMS-10-2013-0192.

Yin, R.K. (2014), *Case Study Research: Design and Methods (5th Ed.)*, *Thousand Oaks, CA: SAGE Publications*.

Yong, R. (2007), “The circular economy in China”, *Journal of Material Cycles and Waste Management*, Vol. 9 No. 2, pp. 121–129.

Zeithaml, V.A. (2006), “Consumer Perceptions of Price, Quality, and Value: A Means-End Model and Synthesis of Evidence”, *Journal of Marketing*, Vol. 52 No. 3, p. 2.

APPENDIX A: INTERVIEW GUIDE

Firm:

Customer: Category:

The purpose of this interview is simply to find out different value aspects that circular economic solutions bring to customers. I have several companies who offers circular economic offers of different kinds, and just like you, I am interviewing their customer firms to explore what they value in the particular offers. Simply, about advantages the offer brings you, the efforts you have to put to make it work and how you would justify those advantages and efforts in to your benefit.

Let's keep it casual, no need of any theoretical backgrounds, what I value is your expertise and experience that helps me figure out the facts needed for my research. Just let me know what you think and what you thought when making decisions, on behalf of the business.

1. Could you briefly explain your position in *customer firm*, your job role, how you do it in practice, and the decision making process?
2. Tell me briefly about what you know about *firm* and what they offer to customers in general.
3. Select the question according to the customer category.

Donor/seller of used or left over →How did you handle the leftovers before deciding to go for *firm*?

Buyer of secondhand/reconditioned→ How did you handle the requirement before deciding to go for *firm*?

Waste management service integrator→ How did you handle your waste before deciding to go for *firm* service?

Chooser of alternative sustainable solutions→ How did you handle the requirement before deciding to go for *firm*?

4. What made you go for *firm*? Where did the idea come from? How would you justify the decision made to go for it?

Check	Dimension	Question
	Emotional/social	Does the decision also have something to do with a personal value? Like a feeling of responsibility to the society or environment?
	Symbolic/esteem	Is it something to do with the business' reputation in the market or the society?
	_____	Was the decision influenced by any governmental or institutional regulation?
	Economic	
	Functional	

5. Was there any alternative offers or own strategies you had to choose from?
6. How does it work now with the offer? How would you describe the benefits/conveniences? In daily basis? Select the check system according to the customer category.

Donor/seller of used or left over →

Check	Dimension	Question
	Economic	How would you justify the monetary benefits? Savings or new profits?
	Functional	How would you compare and contrast time and effort you put to implement the left over sale now vs disposal before? How does this offer involve in any decision making of your daily operations?
	Service	How helpful, convenient and profitable is the platform service that is provided by the offer?

Buyer of secondhand/reconditioned→

Check	Dimension	Question
	Economic	How would you justify the monetary benefits (Savings)?
	Functional	How would you compare and contrast time and effort you put for purchasing/implementing/using/on maintenance/disposing with buying new?
	Service	How helpful, convenient and profitable is the platform service that is provided by the offer?

Waste management service integrator→

Check	Dimension	Question
	Economic	How would you justify the monetary benefits? Savings or new profits?
	Functional	How would you compare and contrast time and effort you put to implement and practice the service with the practices before this service integration?

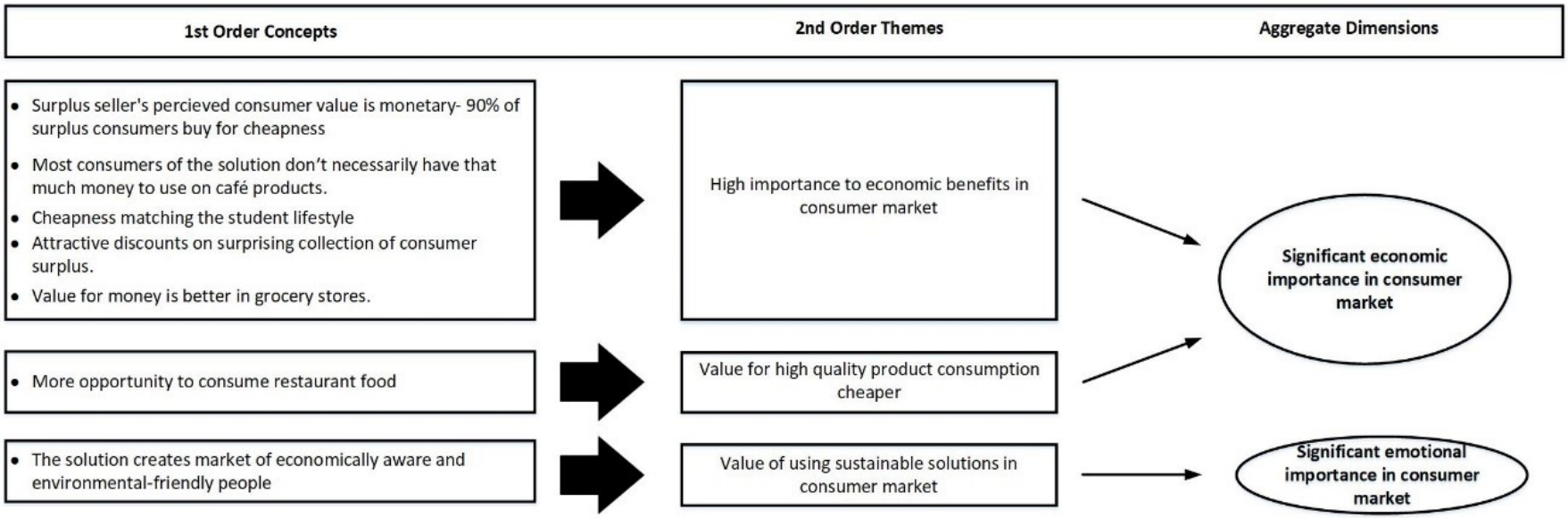
Chooser of alternative sustainable solutions→

Check	Dimension	Question
	Economic	Does the alternative solution bring monetary benefits like savings, compared with the conventional solution?
	Functional	How would you compare the usability/consumption? Is it as good as the conventional, or what are the differences?
	Service	How would you describe benefits the services provide with the offer?

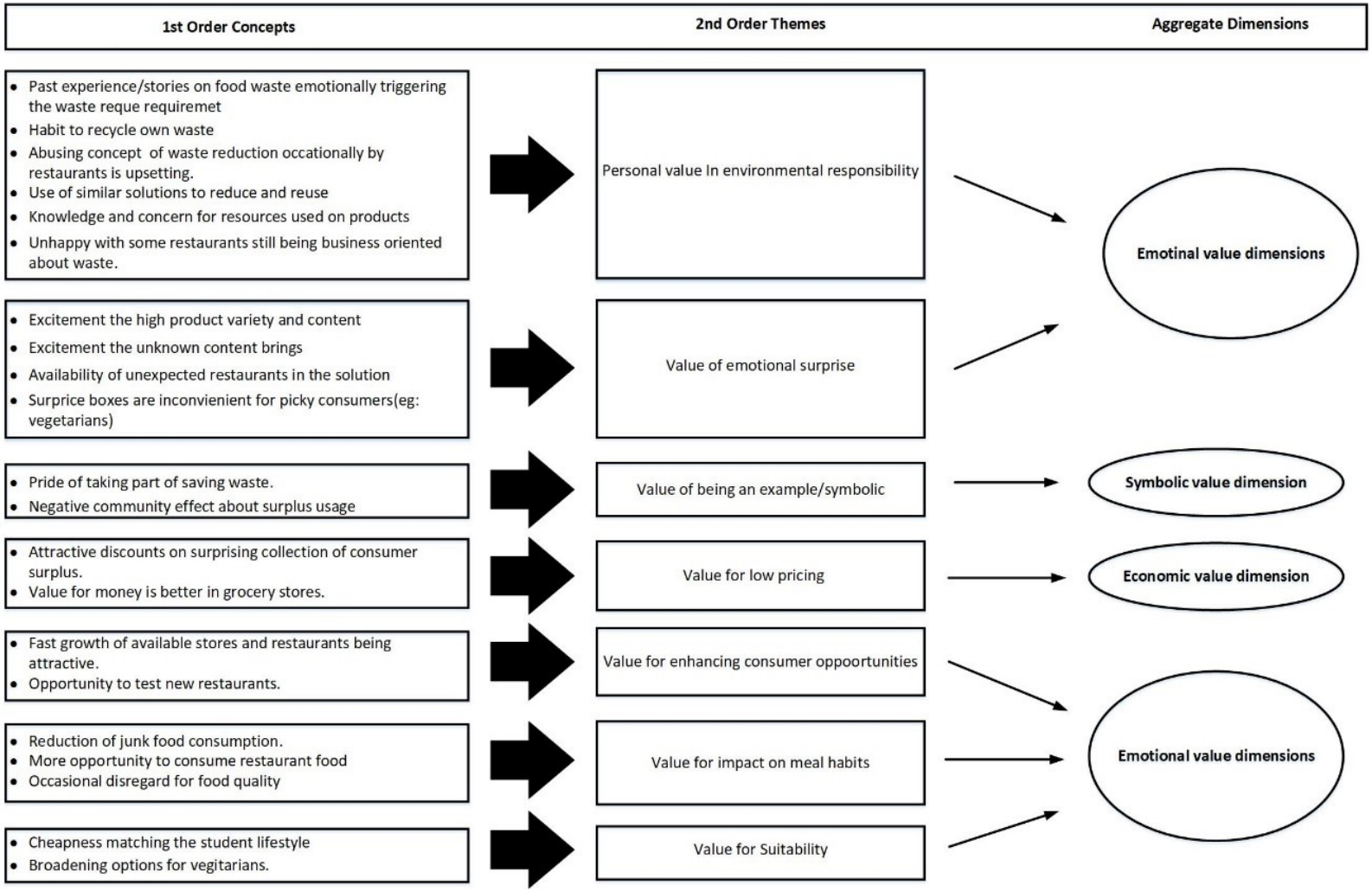
7. How important is this collaboration/service now to the business? Do you want to continue the collaboration in long term? How do you see the future with this?
8. Can you recall any other supplementary benefits of conveniences that came along with the main solution? Were there any surprising benefits?
9. How would you describe the experience of working with the *firm* personnel? How is the business relationship going?
10. Has the offer has evolved since started? Do you have any impact on the evolvement?

APPENDIX B: DATA ANALYSES

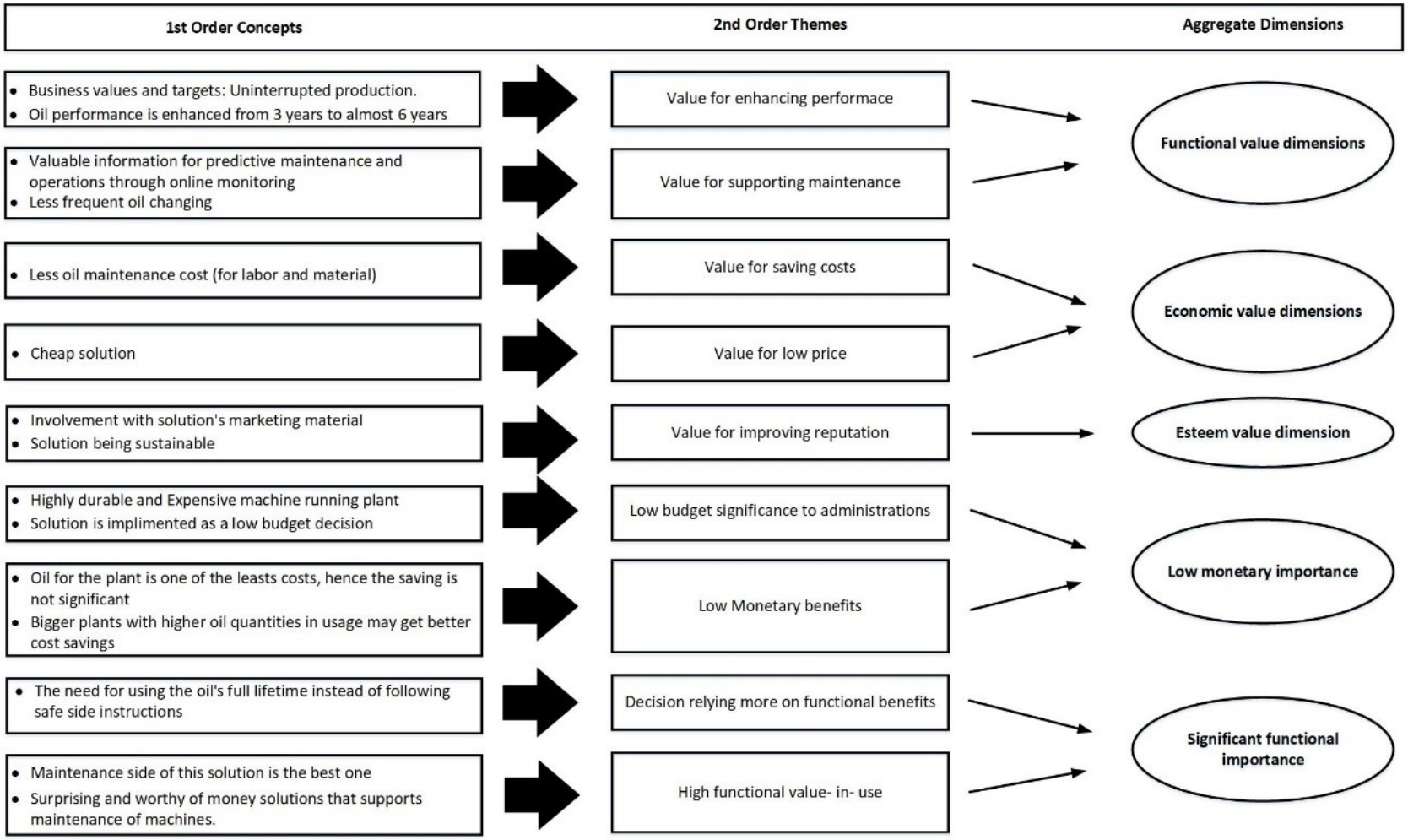
1. Cross- data analysis structure for category 1 and 2 customers.



2. Data analysis structure for category 2 customers.



3. Data analysis structure for category 3 customers.



4. Data analysis structure for category 4 customers.